PER.

—PRESENTED TO—

The New York Academy of Medicine

By Exchange.

19

THE JOURNAL

OF THE

MEDICAL SOCIETY OF NEW JERSEY

PUBLISHED MONTHLY UNDER THE DIRECTION
OF THE BOARD OF TRUSTEES

Volume XXVI.

January, 1929--December, 1929

Publication Committee:
Drs. Charles D. Bennett, J. Bennett Morrison, Edward J. Ill
14 South Day Street, Orange, N. J.

Editor:
Henry O. Reik, M.D., F.A.C.S.

NEW YORK ACADEMY
MEDICINE
-5 1993
164529

INDEX

A

American College Physicians—Report of Meeting..... 267
American College Surgeons—Clinical Congress..... 703
American Medical Association—Report of House of Delegates 781
Annual Conference of County Society Secretaries and Reporters; Report of Proceedings 876

ANNUAL MEETING—

House of Delegates Report.....Sept. Sup. 1-42
Program of 417
Scientific Sessions, Report.....Sept. Sup. 42-51
Section on Ophthalmology, Otology and Rhinolargyngology .....Sept. Sup. 46-49
Section on Pediatrics.....Sept. Sup. 49-51
Transactions of .....Sept. Sup. 1-56
Assessment of Dues.....Sept. Sup. 21

AUTHORS OF ORIGINAL ARTICLES—

Anderson, Richard D.: Physicians of Colonial Days in Burlington County 387
Anspach, Eugene J.: Discussion of Fitting Glasses..... 763
Appleman, Leighton F.:
Importance of Cycloplegia in Fitting of Glasses..... 751
Discussion of Cataract Operations 846
Aurner, Robert R.: Making It Easier to Collect Doctors' Bills 590
Baldwin, Horace S.: Newer Methods of Therapy in Pneumonia 398
Barbash, Samuel: Granulocytic Aplasia of Bone Marrow 318
Barkhorn, Henry L.:
Aural Sepsis 211
Discussion of Acute Retrobulbar Neuritis Caused by Inflammation of the Sphenoid Sinus 200
Discussion of Aural Sepsis 216, 217
Discussion of Nasal Septum in Stenosis 205
Barton, Warner A.: Conservative New England Adopts Credit Bureau 541
Baum, Felix: Discussion of Pulmonary Diseases..... 734
Becker, C. Fred:
Etiology of the Minor and Major Neuroses..... 7
Discussion of Minor Neuroses and Psychoses..... 21
Beling, Christopher C.: Report of Committee on Group Indemnity Insurance—Sept. Sup. 26
Bennett, Charles D.:
Report for Publication Committee..... 421
Sept. Sup. 3
The Old Spanish Trail..... 855
Bentley, D. F., Jr.: Caudal or Epidural Anesthesia..... 503
Bingham, Arthur W.: Maternal Welfare Commission for Essex County 615
Blenkle, V. A.: Certain Relationships of Gastric Hemorrhage and Gastrostaxis 143
Blumberg, Jack: Endothermic Tonsillectomy..... 26
Blumberg, Nathan: Blood Sedimentation in Tuberculosis 628
Borow, Benjamin: Experiences and Observations Concerning Spinal Anesthesia 507
Bradshaw, John Hammond: Service 866
Bradshaw, John Hammond:
Ethics of Fear 691
From Chicago to Mayo Clinic in 3 Hours..... 774
Is the Physician Worthy of His Hire?..... 157
Physician and Prohibition Question 478
Satisfying Rewards of Life 410
Service 866
Strain and Stress 236
The Land of the Yen 544
Visit to Coffey Clinic 483
Burns, M. A.: Ocular Disturbances in Nervous Disease 678
Buzby, B. Franklin:
Orthopedic High Lights for General Practitioner.... 563
Relationship of the Secretary to His Own Society.... 884
Cabot, Richard C.: Permanence of Values..... 768
Campbell, Meredith F.: Complications of Urethral Stricture; Occurrence of 1244 Cases..... 300
Casilli, A. R.: Hemochromatosis (Bronzed Diabetes).... 817
Causey, David: Incidence of Intestinal Protozoan Infection in New Jersey..... 624
Cecil, Russell L.: Experience with Special Biologicals in the Treatment of Pneumonia..... 111
Christian, Thomas B.: Pathology of the Minor Neuroses and Psychoses 10
Collier, Martin H.: Relapsing in Tuberculosis..... 727
Collins, Joseph: Group Practice in Medicine..... 858
Corwin, Theodore W.:
Nasal Septum as a Factor in Stenosis..... 201
Discussion of Nasal Septum in Stenosis..... 205
Cotton, Henry A.:
Discussion of Minor Neuroses and Psychoses..... 21
Relation of Mental Hygiene Clinics to General Hospitals 820
Cox, William Wheeler: Aberrant Pancreas in Stomach Wall 467
Danzis, Max:
County Society Presidential Address 313
Extra-Uterine Pregnancy; Immediate or Delayed Operation 607
Darby, C. Eugene:
Accessory Sinus Infection 206
Discussion of Tonsillectomy 31
Cosgrove, Samuel A.: Education in Obstetrics (Editorial) 328
Davis, Richard M. A.: Discussion of Tonsillectomy.... 33
Deaver, John B.: Atypical Appendicitis..... 665
Deibert, Irvin E.: Subarachnoid Block Analgesia..... 504
Del Duca, Vincent: Discussion of Laboratory Procedures in Pediatrics 747
Demarest, Frederick F. C.:
What Is the Matter with the Tonsil Operation?..... 23
Discussion of Tonsillectomy 31
Dickinson, Gordon K.:
Religion of Third Frontal Convolution..... 289
Report of Committee on Hygiene and Sanitation—Sept. Sup. 27
Dishrow, Harold B.: The Middle of the Road..... 298
Eagleton, Wells P.:
Discussion of Acute Retrobulbar Neuritis..... 200
Discussion of Aural Sepsis.....215, 216
Discussion of Carcinoma of the Larynx..... 197
Emerson, Linn:
Discussion of Acute Retrobulbar Neuritis..... 201
Discussion of Cataract Operations..... 848
Discussion of Fitting Glasses.....756-763
Discussion of Illumination and Asthenopia..... 100
Discussion of Tonsillectomy 34
Englander, C.: Discussion of Mental Hygiene..... 827
English, Samuel B.:
Discussion of Pulmonary Diseases..... 736
Discussion of Tonsillectomy 32
Subsequent History of 10,515 Glen Gardner Patients 711
Use of Artificial Pneumothorax as Hemostatic in Tuberculosis 508
Ewing, Harvey M.:
Angina Pectoris 805
Discussion of Diagnosis and Treatment of the Tachycardias 142
Faught, Francis Ashley: Plea for Routine Blood Pressure Tests 307
Fisher, James A.:
Discussion of Carcinoma of the Larynx..... 197
Discussion of Aural Sepsis..... 217
Discussion of Fitting Glasses..... 755
Discussion of Tonsillectomy 28
Fitz-Hugh, Thomas Jr.: Anemia in Gastro-Intestinal Carcinoma 391
Flynn, John T.: Business and Ethics..... 638
Freeman, Richard D.: Discussion of Tonsillectomy.... 33
Gibb, W. Blake:
Acute Retrobulbar Neuritis Caused by Inflammation of the Sphenoid Sinus..... 197
Discussion of Acute Retrobulbar Neuritis..... 201
Discussion of Illumination and Asthenopia..... 100
Eye Conditions of General Interest..... 570
Glazebrook, Francis H.: Anomalous Peritoneal Membranes 130
Goldstein, Herman I.:
Discussion of Certain Relationships of Gastric Hemorrhage and Gastrostaxis 149
Discussion of Diagnosis and Treatment of the Tachycardias 143
Gorham, A. F.: Surgical Dentistry 576
Gorson, Samuel F.: Minor Neuroses and Psychoses, Classification of 5
Gray, John W.: Registry of Laboratory Technicians.... 267
Green, James S.: Testimonial Dinner to..... 363
Grossman, Morris: Syndrome of Compression of Spinal Roots and Spinal Cord 227
Haigh, G. W.: State Medicine; Boon or Bogy..... 693
Hammond, Frank C.: What Constitutes an Ideal State Society Journal? 645
Harberg, Sydney M.: Blood Sedimentation in Tuberculosis 628
Harden, Albert S.: Report of Interesting Surgical Cases 470
Harley, H. L.: Discussion of Fitting Glasses..... 754
Harman, B. M.:
Sanatorium Clinics in the County..... 234
That Light Outdoor Job..... 684

Hartshorne, Isaac:
Phacoerisis 834
Discussion of Cataract Operations..... 849
Hazen, Hugh F.: Organizing a Physician's Credit Bureau 480
Heilbrunn, Julius: Congenital Syphilis..... 829
Heller, N. B.: Myelitis Following Varicella..... 700
Hersohn, W. W.: Fatal Bacteriemia Due to Escherichia Pseudodysenteria (Kruse) 446
Hicks, William H.:
Symptomatology, Prognosis and Treatment of Minor Neuroses and Psychoses 17
Discussion of Minor Neuroses and Psychoses..... 22
Hiden, J. H.: How the Family Doctor Can Increase His Usefulness and His Income..... 55
Hubbard, Harry V.: Discussion of Tonsillectomy..... 29
Hughes, Lee W.:
Combined Extraction of Cataract..... 841
Discussion of Cataract Operations..... 850
Hummel, E. G.: Discussion of Anemia in Infancy..... 37
Ireland, Allen G.: Address to House of Delegates Sept. Sup. 14
Jackson, Elmer C.:
Ideals and Standards in Children's Hospital Practice 736
Discussion of Mental Hygiene..... 828
Jaffin, A. E.: Discussion of Pulmonary Diseases..... 733
Jaso, James V.: Determination and Propagation of Sex Before Birth 617
Johnson, F. C.:
Discussion of Mental Hygiene..... 827
Discussion of Splenectomy for Hemorrhagic Purpura of Childhood 123
Discussion of Thymic Enlargement..... 129
Johnson, W. M.: How the Family Doctor Can Increase His Usefulness and His Income..... 155
Kelley, Charles B.:
Letter from Board of Examiners..... 871
Violations of Medical Practice Act.....164, 546
Kilduffe, Robert A.:
Blood Grouping Chart..... 563
Diazo Test in Nephritis..... 150
Fatal Bacteriemia Due to Escherichia Pseudodysenteria (Kruse) 446
Granulocytic Aplasia of Bone Marrow..... 318
Kitchen, J. M.: Causes and Treatment of Rheumatism 63
Krauss, F. I.:
Discussion of Anemia in Infancy..... 37
Discussion of Thymic Enlargement..... 128
Landis, H. R. M.: Modern Treatment of Tuberculosis with Special Reference to Rest..... 723
Langston, H. J.: How the Family Doctor Can Increase His Usefulness and His Income..... 340
Lathrope, George H.:
Observations on Clinical Diagnosis of Peptic Ulcer.. 441
Discussion of Pulmonary Diseases..... 735
Lawrence, Joseph S.: Brief Review of a County Medical Society's Opportunities 64
Lee, Frederick P.: Undulant Fever in Northern New Jersey 621
Leonard, George F.: Discussion of Preventive and Special Treatment of Scarlet Fever..... 109
Levin, Louis:
Diagnosis and Treatment of the Tachycardias..... 138
Discussion of Diagnosis and Treatment of the Tachycardias 143
Levinsohn, S. A.: Discussion of Congenital Syphilis.... 833
Levy, Julius:
Discussion of Anemia in Infancy..... 37
Discussion of Mental Hygiene..... 836
Discussion of Prevention and Special Treatment of Scarlet Fever 110
Report of Association American School Physicians.... 785
Lewis, Fielding O.: Problems in Diagnosis and Treatment of Laryngeal Cancer..... 519
Littwin, Charles:
Discussion of Cataract Operations..... 847
Discussion of Fitting Glasses.....754, 765
Lloyd, John: Differential Diagnosis of Pulmonary Diseases 731
London, William: Discussion of Thymic Enlargement 128
Lummis, C. P.: Simplified Infant Feeding in Health and Disease 38
McBride, Andrew F.:
Testimonial Dinner to 584
Welfare Committee Report.....Sept. Sup. 17
McDonald, J. O.: Treatment of Anemia in Infancy and Childhood 35
McGivern, Charles S.: Discussion of Nasal Septum in Stenosis 205
McKinstry, F. P.: The Heart Muscle 676
McLean, William: The Barraquer Cataract Operation 462
Mancusi-Ungaro Lodovico:
Discussion of Diagnosis and Treatment of the Tachycardias 143
Mild Forms of Trichinosis 671
Marcus, Joseph H.:
Congenital Lymphangiectatic Edema 627
Discussion of Mental Hygiene..... 827
Discussion of Tribulations of the New-Born..... 221
Trials and Tribulations of the New-Born..... 217
Tuberculosis Vaccination in Infancy..... 578
Marsh, Elias J.:
Discussion of Cataract Operations..... 849
Discussion of Fitting Glasses.....755, 765
Discussion of Illumination and Asthenopia..... 101
Illumination and Asthenopia 93
Letter to County Society Treasurers..... 703
Presentation of Relics to Society.....Sept. Sup. 39
Presessional Report of Treasurer 474
Regular Annual Report.....Sept. Sup. 21
Simple Extraction of Cataract 839
Meine, B. M.: Certain Relationships of Gastric Hemorrhage and Gastrostaxis 143
Miller, Sydney R.: Problem and Importance of Weight in Relation to General Health..... 808
Morgan, Arthur C.: Discussion of A Brief Review of a County Medical Society's Opportunities 67
Morrison, Frederick H.: History of Medicine in Sussex County 907
Morrison, William Reid: Management of Gastric and Duodenal Ulcers; Operation under Local Anesthesia 572
Morrison, J. B.: Report of Recording Secretary..... Sept. Sup. 3
Mulford, Ephraim R.:
New Year's Greeting 47
Presidential Address 557
Newcomb, Marcus W.:
Discussion of Pulmonary Diseases 735
Discussion of Tonsillectomy 33
Nichols, Stanley H.:
Discussion of Standards in Children's Hospital Practice 744
Discussion of Tribulations of New-Born..... 221
North, Harry R.: Method for Control of Hemorrhage Following Tonsillectomy 24
Olmstead, W. D.: Special Financial Report of Committee on Program and Arrangements 871
Orton, Henry Boylan: Carcinoma of the Larynx..... 191
Osborne, F. J.:
Address to House of Delegates.....Sept. Sup. 16
Discussion of Prevention and Special Treatment of Scarlet Fever 106
Statewide Diphtheria Campaign in New Jersey..... 268
Overton, Frank: State Medical Journals; Their Peculiar Field 165
Paddock, Royce:
Book Reviews 174, 484, 486, 597
Value of Laboratory Procedures in Pediatrics..... 745
Pagliughi, J. J.: Discussion of Tonsillectomy..... 29
Pardee, Harold E. B.: Arteriosclerotic Heart Disease 527, 630
Parsonnet, Aaron E.:
Physician's Record System Conducive to Greater Efficiency 1
Pre-operative and Postoperative Treatment of Diabetics 452
Payne, Guy: Discussion of Mental Hygiene..... 826
Pendexter, Sidney E.: Relative Importance of Fitting Glasses in Ophthalmic Practice 748
Pilkington, Albert:
Discussion of Fitting Glasses 756, 764
Discussion of Illumination and Asthenopia 100
Pinneo, Frank W.:
Discussion of Laboratory Procedures in Pediatrics.... 748
Our Group Health & Accident and Automobile Insurance 872
Presessional Report on Health, Accident and Automobile Insurance 421
Regular Report on Health, Accident and Automobile Insurance .....Sept. Sup. 38
Place, Edwin H.: Prevention and Special Treatment of Scarlet Fever 102
Plant, J. S.: Place of a Mental Hygiene Clinic for Children in the Community..... 823
Pollak, B. S.:
Heritage of Sanitation 293
Tuberculosis in Infancy and Childhood..... 719
Pons, C. A.: Certain Relationships of Gastric Hemorrhage and Gastrostaxis 143
Powell, A. L.: Discussion of Illumination and Asthenopia 99
Pugh, Winfield Scott: Diathermy; Its Use in Gonococcal Infections of the Female..... 222
Quigley, Fred L.: Report Committee on Revision Constitution and By-Laws .....Sept. Sup. 28-38
Quiney, J. J.: Diagnosis of Gall-Bladder Disease by X-Rays 311
Ranson B. B.: Discussion of Anomalous Peritoneal Membranes 137
Rechtman, A. M.: Prevention and Treatment of Scoliosis 533
Reich, Abraham L.: Preoperative and Postoperative Treatment of Diabetics 452
Reik, Henry O.:
Development and Correlation of County Medical Society Work 248

Further Consideration of County Society Opportunities 345
Presessional Report of Editor and Executive Secretary ... 421
Presessional Report for Welfare Committee ... 420
Regular Annual Report of Editor and Executive Secretary ... Sept. Sup. 5
Reiss, J. C.:
Discussion of Fitting Glasses ... 765
Fitting Glasses; From the Optician's Standpoint ... 758
Guild Co-operation Between Opticians and Eye Physicians ... 401
Rhodes, Edward E.: The Medico in Business ... 455
Riggs, Austin F.: The Balanced Life ... 588, 636
Rogers, H. L.: Discussion of Tonsillectomy ... 30
Ross, William H.: Professional Problems and Medical Progress ... 876
Roussel, Albert E.: Discussion of Experience with Special Biologicals in the Treatment of Pneumonia ... 114
Rubin, A. A.: Treatment of Menstrual Disturbances Incidental to Puberty ... 316
Schachter, H. Alton:
Discussion of Aural Sepsis ... 216
Discussion of Minor Neuroses and Psychoses ... 21
Schlichter, Charles H.:
Discussion of Cataract Operations ... 850
Discussion of Fitting Glasses ... 754
Preliminary Iridectomy ... 844
Schwartz, Berthold T. D.: Treatment of Pneumonia ... 567
Selinger, S.: The Questionable Tonsil ... 321
Sheehan, J. Eastman: Surgical Records in Color Motion Photography ... 669
Shell, William, Jr.: Anemia in Gastro-Intestinal Carcinoma ... 391
Sherman, E. S.:
Discussion of Cataract Operations ... 847
Discussion of Fitting Glasses ... 755, 762
Discussion of Illumination and Asthenopia ... 98
Silk, Charles I.: Discussion of Pulmonary Diseases ... 735
Silver, Harry B.:
Discussion of Splenectomy for Hemorrhagic Purpura of Childhood ... 123
Thymic Enlargement ... 124
Discussion of Tribulations of the New-Born ... 220
Skwirsky, Joseph: Preoperative and Postoperative Treatment of Diabetics ... 452
Slavutsky, F. O.: Use of Artificial Pneumothorax as Hemostatic in Tuberculosis ... 508
Smith, Alan De Forest: Low Back Pain from Structural Variation ... 523
Smith, Ellis L.: Discussion of Prevention and Special Treatment of Scarlet Fever ... 105
Spence, Henry: Discussion of Mental Hygiene ... 826
Spencer, George T.:
Letter on Intradural Anesthesia ... 789
Manipulation of Sound in Male Urethra ... 678
Modified Ureteral Catheter for Bladder Drainage ... 149
Steinberg, M.: Medicine and Music ... 242
Stevens, J. Thompson: Management of Carcinoma of Uterine Cervix ... 406
Stewart, W. Blair:
Report of A. M. A. Meeting ... 787
Report of Pennsylvania Society Meeting ... 785
Stewart, Walter Blair: Splenectomy for Hemorrhagic Purpura of Childhood ... 116
Sutphen, E. Blair:
Discussion of Aural Sepsis ... 216
Operation in Acute Purulent Otitis Media ... 209
Taneyhill, E. C.: Field Secretary's Report—Sept. Sup. 10
Trick, Harry R.: Morals of Medicine ... 53
Tuers, G. E.:
Discussion of Tonsillectomy ... 31
Van Etten, Nathan B.: Diphtheria Prevention in New York ... 547
Van Saun, Anna I.: Undulant Fever in Northern New Jersey ... 621
Vinciguerra, Michael:
Hemachromatosis (Bronz d Diabetes) ... 817
Voluntary Mutism ... 395
Wanner, J. George: Thanks Until You Are Better Paid 776
Waters, Edward G.: Intestinal Obstruction; Rationale of Treatment ... 448
Way, Clarence W.: Discussion of Mental Hygiene ... 829
Way, Eugene: Testimonial Dinner to ... 582
Weiss, Louis: Nasal Surgery in Hay Fever ... 466
West, John Howell: Observations on 1500 Feeding Cases ... 673
Wilson, Norton L.: Discussion of Tonsillectomy ... 28

B

Board of Medical Examiners, Report of ... Sept. Sup. 23
Board of Trustees, Report ... Sept. Sup. 17, 40

BOOK REVIEWS—

Criteria for the Classification and Diagnosis of Heart Disease ... 174
Fuel of Life—J. J. R. Macleod ... 484
Recent Advances in Chemistry in Relation to Medical Practice—W. M. Marriott ... 174
Strabismus, Etiology and Treatment—Oscar Wilkinson ... 486
Sypbilis, Acquired and Inherited—Charles C. Dennie ... 597
Budget, Committee Report ... Sept. Sup. 19, 41

C

CASE REPORTS—

Myelitis Following Varicella—N. B. Heller ... 700

COLLATERAL READING—

Art of Thinking ... 540
Conquest of Life ... 477
Consecratio Medici ... 698
Devils, Drugs and Doctors ... 858
History of Medical Progress ... 857
In Search of Truth ... 777
Next Age of Man ... 240
Struggle for Health ... 857
The Balanced Life ... 588, 636
Why We Behave Like Human Beings ... 51
Why We Misbehave ... 154
Constitution and By-Laws; Proposed Revision ... 329
Revision Acted Upon ... Sept. Sup. 28-38-39

COMMITTEE REPORTS—

Board of Trustees ... Sept Sup. 17, 40
Budget Committee Report ... Sept. Sup. 19, 41
Business Committee Report ... Sept. Sup. 40
Committee on Constitution and By-Laws—Sept. Sup. 28-38-39
Committee on Credentials ... Sept. Sup. 1
Committee on Finance and Budget ... Sept. Sup. 19, 41
Committee on Group Indemnity Insurance ... Sept. Sup. 26
Committee on Health, Accident and Automobile Insurance ... Sept. Sup. 38, 421
Committee on Hospital Standardization ... Sept. Sup. 24
Committee on Nominations ... Sept. Sup. 43
Committee on Program and Arrangements ... Sept. Sup. 2
Committee on Public Hygiene and Sanitation ... Sept. Sup. 27
Committee on Publication ... Sept. Sup. 3, 421
Editor and Executive Secretary, Presessional Report ... 421
Regular Annual Report ... Sept. Sup. 5
Field Secretary ... Sept. Sup. 10
Judicial Council ... Sept. Sup. 18
Permanent Delegates ... Sept. Sup. 1
Presessional Reports ... 420
Recording Secretary ... Sept. Sup. 3
State Board Medical Examiners ... Sept. Sup. 23
Treasurer, Presessional Report ... 474
Regular Annual Report ... Sept. Sup. 21
Welfare Committee:
Presessional Report ... 420
Regular Annual Report ... Sept. Sup. 17

COMMUNICATIONS—

Causes and Treatment of Rheumatism—J. M. Kitchen 63
County Society Treasurer's Letter ... 703
Diphtheria Prevention in New York ... 547
Intradural Anesthesia—George T. Spencer ... 789
Letter from Secretary Board of Medical Examiners ... 871
Mrs. Eddy's Life Story Revised on Claim She Used Drugs ... 270
Our Group Health and Accident and Automobile Insurance ... 872
Second Graduate Fortnight—New York Academy of Medicine ... 595
Special Financial Report Committee on Program and Arrangements ... 871
Special Note from Welfare Committee—Nebraska Lien Law ... 64
Statewide Diphtheria Campaign in New Jersey—F. J. Osborne ... 268
The Land of the Yen ... 544
Tuberculosis Campaign ... 344
Violations of Medical Practice Act ... 164, 546
Visit to Coffey Clinic ... 483

CORRECTIONS—

Of Official List ... 413

CURRENT EVENTS—

American College of Physicians ... 267
American College of Surgeons, Nineteenth Clinical Congress ... 703
Annual Meeting Pennsylvania State Medical Society ... 785
Association American School Physicians ... 785
Conference of County Society Secretaries and Reporters; Report of ... 876
Ex-President Green Honored ... 363
Fifty-Fourth Annual Meeting New Jersey Public Health and Sanitary Association ... 172
House of Delegates—Portland Session A. M. A. ... 781
Interstate Post-Graduate Medical Association of North America ... 702

Registry of Laboratory Technicians 267
State Health Officers Meeting 486
Tablet to Lucius F. Donohoe 74
Tristate Medical Conference Report 64, 165, 345, 644
Welfare Committee Meeting Minutes 890

D

DEATHS—

Abraham, Charles Franklin 151
Beggs, William F. 689
Blum, Karl A. 580
Brundage, Philip Edwin 151
Bizby, Mrs. Benjamin E. 896
Carnochan, John McDowell 46
Davis, Henry H. 497
Dix, J. Morgan 151
Elliott, David 580
Fischer, William C. 689
Flagge, Frederick W. 634, 690
Hann, Peter S. 416
Hemsath, John 324
Hughes, Morgan D. 767
Kelly, Thomas J. 416
Lewis, Alfred A. 151
Mercer, Mrs. Archibald 324
Ogden, William E. 46
Pyle, Wellden 152
Stage, Samuel J. 324
Van Gaasbeek, Harvey D. 416
Weeks, David F. 324, 414
Younglove, John 152
Diphtheria Prevention in New York 547

DISCUSSION OF PAPERS—

Acute Retrobulbar Neuritis 200
Anemia in Infancy 37
Anomalous Peritoneal Membranes 137
Aural Sepsis 215
Certain Relationships of Gastric Hemorrhage and Gastrostaxis 149
Carcinoma of the Larynx 197
Cataract Operations 834-850
Congenital Syphilis 833
Diagnosis and Treatment of the Tachycardias 142
Experience With Special Biologicals in Treatment of Pneumonia 114
Fitting of Glasses in Ophthalmic Practice 754, 763
Ideals and Standards in Children's Hospital Practice 744
Illumination and Asthenopia 98
Laboratory Procedures in Pediatrics 747
Mental Hygiene 820-829
Minor Neuroses and Psychoses 21
Nasal Septum and Stenosis 205
Prevention and Special Treatment of Scarlet Fever 102
Pulmonary Symposium 733
Splenectomy for Hemorrhagic Purpura of Childhood 116
Thymic Enlargement 128
Tonsillectomy 27
Trials and Tribulations of New-Born 220
Dues, Assessment of .....Sept. Sup. 21

ECONOMICS—

Business and Ethics 638
Conservative New England Adopts Credit Bureau 541
Group Practice in Medicine 858
How the Family Doctor Can Increase His Usefulness and His Income 55, 155, 340
Making It Easier to Collect Doctor's Bills 590
Organizing Physicians' Credit Bureau 480
Physician's Income Tax 245
State Medicine; Boon or Bogy 693
Thanks Until You Are Better Paid 776

E

EDITOR—

Presessional Report 421
Regular Annual Report .....Sept. Sup. 5

EXECUTIVE SECRETARY—

Presessional Report 421
Regular Annual Report .....Sept. Sup. 5

EDITORIALS—

Approaching Annual Meeting 411
Changing Conditions in Medical Practice 851
Conference of Secretaries and Reporters 852
Congressional Bills 476
Contents of November Journal 771
County Societies 239
County Society Development 49, 325
Diabetic Coma 854
Do You Carry Accident Insurance? 581
Education in Obstetrics 328
Group Insurance 853
Growth of the Journal 413
Hospitals and Health Examinations 238
In Retrospect 48
In Union There Is Strength 412
Income Tax Reports 238
Knickerbocker Adjustment Company 327
Legislation at Trenton 237
Membership in the County Society 852
New Year Greetings—Ephraim R. Mulford 47
New Year Plans 49
Newspapers and Proprietary Medicines 412
Pending Tariff Bills 635
Post-Graduate Study 773
Preparation for Annual Meeting 50
Recent Annual Meeting 539
Regulating Practice of Surgery 772
Remember the Convention 475
Revising the Pharmacopeia 854
Revision Constitution and By-Laws .....
Selection of County Officers 687
Special Business for Consideration 475
Standards in Hospitals 772
State Legislation 153
State Legislature Adjourns 411
State Society Program 50
Unprofessional Conduct 326
Volunteers for Program 237
Election of Officers .....Sept. Sup. 43

ESTHETICS—

Delusion of Being Free 698
Homo Boobus Comes to the Bat 58
I Will Lift Mine Eyes Unto the Hills 541
Literary Rebellion 413
Medicine and Music 242
Permanence of Values 768
Postgraduate Study in France and England 873
There Are Still a Few Wonders 158

ETHICS—

Ethics of Fear 691
Is Physician Worthy of His Hire? 157
Morals of Medicine 53
Physician and Prohibition Question 478
Satisfying Rewards of Life .....
Selling Ignorance 542
Service 866
Strain and Stress 236
Why Work? 776

F

Field Secretary, Annual Report of .....Sept. Sup. 10
Finance and Budget. Report of Committee—Sept. Sup. 19, 41

H

Hospital Standardization, Committee Report—Sept. Sup. 24

HOUSE OF DELEGATES—

Opening Session .....Sept. Sup. 1
Report of Proceedings .....Sept. Sup. 1-46

I

INSURANCE—

Group Indemnity .....Sept. Sup. 26
Health, Accident and Automobile, Report of Committee Sept. Sup. 38

J

Judicial Council, Annual Report of .....Sept. Sup. 18

L

LAY MIRROR REFLECTIONS—

A Physician's Creed 164
Bad Teeth Always 63
Chicago Public Health Institute Has Newspaper Holiday 489
Cost of Medical Care 548
Crime and Defective Intelligence 874
Example of Other Hospitals 789
High Court Upholds State Optical Law 428
Himself He Could Not Heal 344
How to Be Happy Though Eighty 344
Medical Progress 271
Metropolitan Life Insurance Figures 62
Milk Commission Deserves Support in a Good Fight .. 272
Movietone in Medical Schools 272
New Hospital Regime 874
New Training for Medical Students 271
Non-Suit Granted to Local Physician 163
Postgraduate Study in France and England 873
Research Backs Male Revolt 787
Servants of Health 875
State to Do Its Duty in Care for Insane 164
Tariff on Surgical Instruments 596
Temple Doctor Found at Bergama 343

The Country Doctor ... 344
The Family Doctor ... 643
The Will to be Fooled ... 427
Tyranny—Not Republican Government ... 702
Wanted in France: American Medical Students ... 873
When Doctors Disagree—In Chicago ... 487

M

Medical Examiners, Report of State Board—Sept. Sup... 23

N

Nebraska Lien Law ... 64
Nominating Committee, Report of ... Sept. Sup. 43

O

OBSERVATIONS FROM THE LIGHTHOUSE—

Anemia ... 548
Anesthesia in Obstetrics ... 482
Appendicitis in Children Associated with Epidemic Respiratory Infections ... 869
Backache ... 265
Backache from Gynecologic Standpoint ... 266
Back Pain from Orthopedic Point of View ... 265
Bacteriophage ... 780
Chronic Cardiac Diseases ... 701
Diseases of Rectum and Colon ... 426
Gall-Bladder Disease ... 159
Immunization ... 60
Influence of Physiologic Research on Modern Surgery.. 342
Mortality of Appendicitis in Children ... 869
Progress in Psychiatry in the Last 25 Years ... 60
Psychology of Appearances ... 594
Relation Between Gall-Bladder and Pancreatitis ... 162
Relation of Genito-Urinary Organs to Backache ... 265
Respiratory Infections in Childhood ... 59
Rhinology and Internal Medicine ... 642
Role of the Banana in Diet of Infants ... 869
Sequels and Accidents of Biliary Surgery ... 161
Some Medical Aspects of Disease of the Gall-Bladder and Bile Passages ... 163
Surgery of the Bile Duct ... 160
Surgery of the Gall-Bladder ... 159
X-Ray Examination in Low Back Pain ... 266
Officers, Election of ... Sept. Sup. 43

ORIGINAL ARTICLES—

Aberrant Pancreas in Stomach Wall—William Wheeler Cox ... 467
Accessory Sinus Infection—C. Eugene Darby ... 206
Acute Retrobulbar Neuritis Caused by Inflammation of the Sphenoid Sinus—W. Blake Gibb ... 197
Anemia in Gastro-Intestinal Carcinoma—Thomas Fitz-Hugh, Jr., and William T. Shell, Jr. ... 391
Angina Pectoris—Harvey M. Ewing ... 805
Anomalous Peritoneal Membranes—Francis H. Glazebrook ... 130
Arteriosclerotic Heart Disease—Harold E. B. Pardee 527, 630
Atypical Appendicitis—John B. Deaver ... 665
Aural Sepsis—Henry I. Barkhorn ... 211
Barraquer Cataract Operation—William McLean ... 462
Blood Grouping Chart—Robert A. Kilduffe ... 563
Blood Sedimentation in Tuberculosis—Nathan Blumberg, Sydney M. Harberg ... 628
Brief Review of County Society Opportunities—Jos. S. Lawrence ... 64
Carcinoma of the Larynx—Henry Boylan Orton ... 191
Cataract, Combined Extraction of—Lee W. Hughes ... 841
Cataract, Simple Extraction of—Elias J. Marsh ... 839
Caudal or Epidural Anesthesia—D. F. Bentley, Jr. ... 503
Certain Relationships of Gastric Hemorrhage and Gastrostaxis—C. A. Pons, B. M. Meine and V. A. Blenkle ... 143
Complications of Urethral Stricture; Occurrence in 1244 Cases—Meredith F. Campbell ... 300
Congenital Lymphangiectatic Edema—Joseph H. Marcus 627
Congenital Syphilis—Julius Heilbrunn ... 829
Cycloplegia in Fitting Glasses—Leighton F. Appleman 751
Determination and Propagation of Sex Before Birth—James V. Jaso ... 617
Diagnosis and Treatment of the Tachycardias—Louis Levin ... 138
Diagnosis of Gall-Bladder Disease by X-Rays—J. J. Quiney ... 311
Diathermy; Its Use in Gonococcal Infections of the Female—Winfield Scott Pugh ... 222
Diazo Test in Nephritis—Robert A. Kilduffe ... 150
Differential Diagnosis of Pulmonary Diseases—John Lloyd ... 731
Endothermic Tonsillectomy—Jack Blumberg ... 26
Essex County Society Presidential Address—Max Danzis 313
Etiology of the Minor and Major Neuroses—C. Fred Becker ... 7
Experiences and Observations Concerning Spinal Anesthesia—Benjamin Borow ... 507
Experience with Special Biologicals in Treatment of Pneumonia—Russel L. Cecil ... 111
Extra-Uterine Pregnancy; Immediate or Delayed Operation—Max Danzis ... 607
Eye Conditions of General Interest—W. Blake Gibbs ... 570
Fatal Bacteriemia Due to Escherichia Pseudodysenteria (Kruse)—Robert A. Kilduffe and W. W. Hersohn ... 446
Fitting Glasses; From the Optician's Standpoint—J. C. Reiss ... 758
Further Consideration of County Society Opportunities—Henry O. Reik ... 345
Granulocytic Anlasia of Bone Marrow—Samuel Barbash and Robert A. Kilduffe ... 318
Group Practice of Medicine—Joseph Collins ... 858
Guild Co-operation Between Opticians and Eye Physicians—J. G. Reiss ... 401
Hemochromatosis (Bronzed Diabetes)—Vinciguerra and Casilli ... 817
Heritage of Sanitation—B. S. Pollak ... 293
History of Medicine in Sussex County—Frederick H. Morrison ... 907
Ideals and Standards in Children's Hospital Practice—Elmer C. Jackson ... 736
Illumination and Asthenopia—Elias J. Marsh ... 93
Incidence of Intestinal Protozoan Infection in New Jersey—David Causey ... 624
Interesting Surgical Cases—Albert S. Harden ... 470
Intestinal Obstruction; Rationale of Treatment—Edward G. Waters ... 448
Is the Physician Worthy of His Hire?—John Hammond Bradshaw ... 157
Low Back Pain from Structural Variation—Alan De Forest Smith ... 523
Management of Carcinoma of Uterine Cervix—J. Thompson Stevens ... 406
Management of Gastric and Duodenal Ulcers; Operation under Local Anesthesia—William Reid Morrison 572
Manipulation of Sound in Male Urethra—George T. Spencer ... 678
Maternal Welfare Commission for Essex County—Arthur W. Bingham ... 615
Method for Control of Hemorrhage Following Tonsillectomy—Harry R. North ... 24
Middle of the Road—Harold B. Disbrow ... 298
Mild Forms of Trichinosis—Lodovico Mancusi-Ungaro 671
Miner Neuroses and Psychoses, Classification of—Samuel F. Gorson ... 5
Modern Treatment of Tuberculosis with Special Reference to Rest—H. R. M. Landis ... 723
Modified Ureteral Catheter for Bladder Drainage—George T. Spencer ... 149
Nasal Septum as a Factor in Stenosis—Theodore W. Corwin ... 201
Nasal Surgery in Hay Fever—Louis Weiss ... 466
Newer Methods of Therapy in Pneumonia—Horace S. Baldwin ... 398
Observations on Clinical Diagnosis of Peptic Ulcers—George H. Lathrope ... 441
Observations on 1500 Feeding Cases—John Howell West 673
Ocular Disturbances in Organic Nervous Disease—M. A. Burns ... 678
Operation in Acute Purulent Otitis Media—E. Blair Sutphen ... 209
Orthopedic High Lights for General Practitioners—B. Franklin Buzby ... 563
Pathology of the Minor Neuroses and Psychoses—Thomas B. Christian ... 10
Permanence of Values—Richard C. Cabot ... 768
Phacoerisis—Issac Hartshorne ... 834
Physicians of Colonial Days in Burlington County—Richard D. Anderson ... 387
Physician's Record System Conducive to Greater Efficiency—Aaron E. Parsonnet ... 1
Place of a Mental Hygiene Clinic for Children in the Community—J. S. Plant ... 823
Plea for Routine Blood Pressure Tests—Francis Ashley Faught ... 307
Preliminary Iridectomy—Charles H. Schlichter ... 844
Preoperative and Postoperative Treatment of Diabetics—Parsonnet, Reich and Skivirsky ... 452
President's Address—Ephraim R. Mulford ... 557
Prevention and Special Treatment of Scarlet Fever—Edwin H. Place ... 102
Prevention and Treatment of Scoliosis—A. M. Rechtman ... 533
Problem and Importance of Weight in Relation to General Health—Sydney R. Miller ... 808
Problems in Diagnosis and Treatment of Laryngeal Cancer—Fielding O. Lewis ... 519
Professional Problems and Medical Progress—William H. Ross ... 876
Relapsing in Tuberculosis—Martin H. Collier ... 727
Relation of Mental Hygiene Clinics to General Hospitals—Henry A. Cotton ... 820
Relationship of the Secretary to His Own Society—B. Franklin Buzby ... 884
Relative Importance of Fitting Glasses in Ophthalmic Practice—Sidney E. Pendexter ... 748
Religion of Third Frontal Convolution—Gordon K. Dickinson ... 289

Sanatorium Clinics in the County—B. M. Harman..... 234
Service—John Hammond Bradshaw 866
Simplified Infant Feeding in Health and Disease—C. P. Lummis 38
Splenectomy for Hemorrhagic Purpura of Childhood—Walter Blair Stewart 116
State Medical Journals; Their Peculiar Field—Frank Overton 165
Subarachnoid Block Analgesia—Irvin E. Deibert..... 504
Subsequent History of 10,515 Glen Gardner Patients—Samuel B. English 711
Surgical Dentistry—A. F. Gorham 576
Surgical Records in Color Motion Photography—J. Eastman Sheehan 669
Symptomatology, Prognosis and Treatment of Minor Neuroses and Psychoses—William H. Hicks..... 17
Syndrome of Compression of Spinal Roots and Spinal Cord—Morris Grossman 227
That Light Outdoor Job—B. M. Harmon..... 684
The Heart Muscle—F. P. McKinstry..... 676
The Medico in Business—Edward E. Rhodes..... 455
The Questionable Tonsil—S. Selinger..... 321
Thymic Enlargement—Harry B. Silver..... 124
Treatment of Anemia in Infancy and Childhood—J. O. McDonald 35
Treatment of Menstrual Disturbances Incidental to Puberty—A. A. Rubin 316
Treatment of Pneumonia—Berthold T. D. Schwartz.... 567
Trials and Tribulations of the New-Born—Joseph H. Marcus 217
Tuberculosis in Infancy and Childhood—B. S. Pollak... 719
Tuberculosis Vaccination in Infancy—Joseph H. Marcus 578
Undulant Fever in Northern New Jersey—Frederick P. Lee and Anna I. Van Saun..... 621
Use of Artificial Pneumothorax as Hemostatic in Tuberculosis—Samuel B. English and F. O. Slavatsky.... 508
Value of Laboratory Procedures in Diseases of Infants and Children—Royce Paddock..... 745
Voluntary Mutism—Michael Vinciguerra..... 395
What Constitutes an Ideal State Society Journal—Frank C. Hammond 645
What Is the Matter with the Tonsil Operation?..Frederick F. C. Demarest 23
Permanent Delegates, Report of.....Sept. Sup. 1

P

PERSONAL ITEMS—

Jan., XXIII; Feb., XXIII; Mar., XXIII; April, XXIII; May, XXVII; June, XXVII; July, XXVII; Aug. XXVII; Sept., XXVII; Oct., XXVII; Nov., XXVII

POEMS—

A Healing Balm 664
An Old Prayer Still Good..... 633
Around the Corner 606
Autumn Reveries 686
Guinea Pigs 688
It's Just Killing 323
Lest We Forget 710
Literary Rebellion 413
The Clique 473
The Doctors 850
Postgraduate Study in France and England..... 873
Presessional Reports 420
Program of Annual Meeting 417

PUBLICATION COMMITTEE—

Presessional Report 421
Regular Annual Report.....Sept. Sup 3

R

Recording Secretary, Annual Report.....Sept. Sup. 3

S

Scientific Sessions of Annual Meeting, Report of Proceedings .....Sept. Sup. 42-51

SOCIETY REPORTS—

County Medical Societies:

Atlantic 78, 177, 274, 366, 431, 492, 793, 897
Bergen 81, 371, 433, 496, 706, 795
Burlington 373, 496, 597, 796, 901
Camden 82, 181, 279, 373, 434, 497, 552, 902
Cape May 497, 903
Cumberland 182, 434, 598, 796
Essex 182, 279, 374, 434, 498, 796, 903
Gloucester 82, 183, 280, 374, 435, 498, 802, 905
Hudson 82, 183, 280, 375, 435, 499, 802, 905
Hunterdon 437, 663, 803
Mercer 89, 189, 286, 383, 438, 502, 604, 803
Middlesex 90, 384, 502, 604, 706, 803
Monmouth 90, 287, 384, 438, 552, 906
Morris 90, 385, 552, 707
Ocean 287, 556, 907
Passaic 91, 288, 386, 439, 502, 708, 803, 907
Salem 91, 288, 439, 804
Somerset 91, 189, 288, 439, 604, 804
Sussex 907
Union 91, 190, 440, 604, 804
Warren .....440, No. xxxi, 910

Local Societies:

Academy of Medicine of Northern New Jersey..... 279
Eye, Ear, Nose and Throat Section...183, 374, 434, 798, 904
Section of Medicine and Pediatrics..... 802
Associated Physicians of Montclair..... 280
Atlantic City Hospital Staff:.....78, 179, 276, 368, 432
551, 661, 703, 900
Bayonne Hospital Conference 375, 436, 499, 602
Bayonne Tuberculosis Clinic 499
Clinical Society Elizabeth General Hospital..... 910
Delaware and Lackawanna Surgeons, Annual Meeting 664
Jersey City Hospital Staff 376 437
North Hudson Hospital Clinical Society..84, 184, 280, 378, 437, 598
Osler Clinical Society 83, 285
Rutgers Medical Club 90, 384, 438, 803, 906
Summit Medical Society....92, 288, 386, 440, 502, 556, 709, 909

SPECIAL ARTICLES—

Conference of County Society Secretaries and Reporters 248
Development and Correlation of County Medical Society Work—Henry O. Reik 248
Testimonial Dinner to Dr. Andrew F. McBride..... 584
Testimonial Dinner to Dr. Eugene Way..... 582
State Board Medical Examiners, Report.....Sept. Sup. 23

SYMPOSIUMS—

Neuroses and Psychoses .....
Pulmonary Diseases 711

TESTIMONIAL DINNERS—

James S. Green 363
Mrs. James Hunter, Jr. 896
Andrew F. McBride 584
Eugene Way 582

T

Transactions, Annual Meeting.....Sept. Sup 1-56

TRAVEL ARTICLES—

From Chicago to Mayo Clinic in 3 Hours—John Hammond Bradshaw 774
The Old Spanish Trail—Charles D. Bennett..... 855

TREASURER—

Annual Report 474
Sept. Sup 21
Trustees, Annual Report.....Sept. Sup. 17, 40

W

Welfare Committee, Minutes of October Meeting..... 890

WELFARE COMMITTEE—

Note on Nebraska Lien Law 64
Presessional Report 420
Regular Annual Report.....Sept. Sup. 17

WOMAN'S AUXILIARY—

Just What Can We Do About the Future?..... 893

County Reports:

Atlantic 75, 176, 273, 364, 491, 791 895
Bergen 176
Burlington 75, 273, 364
Camden 76, 365, 430, 491, 791
Cape May 491, 895
Essex 273, 430, 895
Gloucester 76, 176, 430, 895
Hudson 76, 176 274, 365, 791, 896
Hunterdon 430
Mercer 76, 365, 96
Passaic 77
Salem 77, 792
Somerset 77, 792
Sussex 492, 792
Union 77, 177, 430, 792
Warren 431
General News 75, 175 272, 364, 428, 490
Report of Portland Session A. M. A. Auxiliary.....790
Report Proceedings of Annual Meeting—Sept. Sup...51-57
State Society Auxiliary 175, 489

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103. Act of Oct. 3, 1917, authorized July 29, 1918

Vol. XXVI., No. 1. Orange, N. J., January, 1929 Subscription, $3.00 Per Year Single Copies, 30 Cents

CONTENTS

ORIGINAL ARTICLES— Page

Physician's Record System Conductive to Greater Efficiency—Dr. Aaron E. Parsonnet 1

Classification of Minor Neuroses and Psychoses—Dr. Samuel F. Gorson 5

Etiology of the Minor and Major Neuroses —Dr. C. Fred Becker 7

Pathology of the Minor Neuroses and Psychoses—Dr. Thomas B. Christian 10

Symptomatology, Prognosis and Treatment of Minor Neuroses and Psychoses—Dr. William H. Hicks 17

ORIGINAL ARTICLES— Page

What Is the Matter with the Tonsil Operation?—Dr. Frederick F. C. Demarest... 23

A Method for Control of Hemorrhage Following Tonsillectomy — Dr. Harry R. North 24

Endothermic Tonsillectomy — Dr. Jack Blumberg 26

Treatment of Anemia in Infancy and Childhood—Dr. J. O. McDonald 35

Symplified Infant Feeding in Health and Disease—Dr. C. P. Lummis 38

Continued on page VI.

LIBRARY

Remember! *when treating stubborn coughs you have available*

CALCREOSE offers the full expectorant action of creosote in a form agreeable to the patient.

Each 4 gr. tablet contains 2 grs. of creosote combined with calcium hydroxide.

Calcreose

Meeting the demand for a cough syrup containing *Calcreose* is the new COMPOUND SYRUP OF CALCREOSE ... a tasty, effective remedy for minor respiratory affections.

Each fluid ounce represents Calcreose Solution, 160 minims (equivalent to 10 minims of pure creosote); Alcohol, 24 minims; Chloroform, approximately 3 minims; Wild Cherry Bark, 20 grains; Peppermint, Aromatics and Syrup q.s. *Samples of Tablets and Syrup to Physicians on Request.*

MALTBIE CHEMICAL COMPANY
NEWARK, N.J.

AMMONIACAL URINE

"As the case improves, dextri-maltose may be substituted for the malt extract so that the final formula reached will contain dextri-maltose as the carbohydrate."

MEAD'S DEXTRI-MALTOSE

QUITE apart from the local therapy and care of diapers in the control of cases of ammoniacal urine is the question of diet. Diet is an important matter.

The etiology, in the majority of these cases, indicates an intolerance for milk fat. High fat feedings result in an excess of volatile fatty acids in the stomach and intestines and a condition of "acidosis" prevails.

Constipation is a marked symptom. Hard, dry, crumbly stools of grey color can be shaken from the diaper without leaving stains; fat indigestion consisting chiefly of insoluble soaps.

Dietary treatment consists in the reduction of fats to the infant's tolerance and the increased addition of carbohydrates to restore the caloric value of the food.

Mead's Dextri-Maltose No. 3 is the indication, first, because of its easy assimilation and second, because it contains an alkali in the form of a 3% addition of potassium bicarbonate to aid in overcoming the constipation.

From Text Books of over a decade

THE MEAD POLICY

Mead's infant diet materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

MEAD JOHNSON & COMPANY
EVANSVILLE, INDIANA

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 1 ORANGE, N. J., JANUARY, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

PHYSICIANS' RECORD SYSTEM CONDUCIVE TO GREATER EFFICIENCY

Aaron E. Parsonnet, M.D., F.A.C.P.

Attending Physician at the Newark Beth Israel Hospital

Newark, N. J.

Every clinician, but especially the young man starting in the practice of medicine, should install an office system of record-keeping which should fulfill the following requirements: (1) Completeness; (2) simplicity of use; (3) adaptability to expansion; (4) ready accessibility; (5) amenability to statistical observation. None of these essential requirements is met by the many commercial ready-systems now in vogue.

After a careful study of all available ready-records and those of many eminent clinicians, I found them wanting in one or another of the above mentioned requirements, and, therefore, evolved a system which has been in use in my office for several years.

The system includes the following:

(1) A record card on which is the patient's name, address, case number, and date of examination.

(2) A history and physical examination sheet.

(3) Several individual slips of different colors for laboratory work, special examinations, and subsequent additional information. (See illustrations.)

The record card is filed alphabetically. For the purpose of making the file less bulky, and thereby facilitating the finding of the proper case number, we divided our cards into male and female lists.

The history sheet is folded in half, the various smaller slips are placed between the folds. and the whole inserted in a heavy manila envelope which is filed by number.

Any commercial sectional cabinet may be efficiently used for filing and storing cases, thereby avoiding especially constructed, expensive cabinets.

Through the use of numbers, facilities for expansion are unlimited. Additional cabinets may be added as needed, and all case records are thus rendered active and always accessible. When a case becomes inactive through death, and its future use for reference is undesirable, the card and record may be destroyed and the same number bestowed upon a new case.

The chief advantages of this system are an orderly sequence of taking a personal history and the unlikelihood of important omissions in physical routine, thereby eliminating the chief causes of inaccurate diagnosis, and at the same time making the record accessible for scientific observations and deductions.

Of course this system is not *fool-proof;* its efficiency depends upon ability of the physician to correctly interpret physical signs and other diagnostic data and it will only be as perfect as the examiner's ability of accurate observations. This system also makes possible notations of negative data which are many times fully as valuable as positive findings.

My cards were printed by a local stationer who had no previous experience with this type of work, so it is likely that any good printing house can copy them.

JOHN SMITH, M.D., F.A.C.P.

Name .....Date..... No.....
Address .....
Occupation..... Referred by .....
Age..... Sex..... Nat.....S ..M ..W ..Wt.....Ht.....
Family History .....
.....
.....
Family Diseases....Ne. ..H. ..Tb. ..D. ..In. ..Ca. ..Al. .....
Chief Complaints .....
Past History....Di. ..Sc. ..Me. ..Rh. ..Ton. ..M. ..Ty. ..Mal. ..Pn. ..Wc. .....
Medical .....
Surgical .....
Head .....
C. V. & Resp. .....
.....
.....
Gastro-Intestinal .....
Genito-Urinary .....
Gynecological .....
.....
.....
.....
Habits .....Ex.....Tea.....Coffee.....Alc.....Tob.....Sl.....
Present Illness .....
.....
.....
.....
.....
.....
.....
.....
.....

(Fig. 1.) History sheet, to be folded in half when completed. Size 6 x 8 in., white bond paper. History side.

Appearance .....
Skin .....
M. M. .....
Head .....
Nose .....
Ears .....
Teeth .....
Tongue .....
Tonsils .....
Throat .....
Larynx .....
Sinuses .....
Eyes .....
.....
Ductless Glands .....
Glands A.C.....P.C.....Ax.....Epit.....Ing.....
Reflexes K.J.....Bab.....Ker.....A.K.....R.H.....
Blood Pressure..... S..... D..... P.P..... Temp..... Resp.....
Heart Periph. Vessels .....
.....
.....
Pulse .....
Thorax & Lungs .....
.....
.....
.....
Abdomen & Pelvis .....
.....
.....
G.U. .....
Extremities .....
Fluoroscope .....
.....
Diagnosis .....
.....
.....

(Fig. 2.) Reverse of history sheet, physical examination data.

JOHN SMITH, M.D., F.A.C.P.

Urine Analysis

Name .....
Address .....
Date .....
Color .....
Reaction .....
Sp. Gr. .....
Albumen .....
Sugar .....
Acetone .....
Diacetic Acid .....
Indican .....
Bile .....
Casts .....
Pus .....
R. C. .....
Ep. Cells .....
Crystals .....
Urea .....
Phos. .....
Chlor. .....

(Fig. 3.) Urine Analysis slip, yellow paper, 5½ x 3½ in.

JOHN SMITH, M.D., F.A.C.P.

Examination of Blood

Name ..... Date .....
Address .....
Red Cells per cu. mm. ..... White Cells .....
Hemoglobin ..... Color Index .....
Malarial Parasites .....
Bacteria or Other Elements .....
..... Differential Count: .....
Poly ..... S. Lympho. ..... L. Lympho .....
Trans. ..... Eosino ..... Baso. .....
Abnormal Red Cells .....
Degenerated Cells ..... Blood Chemistry: .....
Widal Reaction ..... Uric Acid .....
Other Serum Reactions ..... Urea Nitrogen .....
Compliment Fixations ..... Creatinine .....
Wassermann ..... Blood Sugar .....

(Fig. 4.) Blood examination slip, pink paper, 5½ x 3½ in.

JOHN SMITH,M.D., F.A.C.P.

Special Examination

Name ..... Date .....
Address .....
Character of Specimen .....
How Collected .....
Special Examination for .....
Findings .....
.....
.....
.....
.....
.....
.....
.....
.....
.....

(Fig. 5.) Special examination slip, blue paper, 5½ x 3½ in.

JOHN SMITH, M.D., F.A.C.P.
Roentgenologic Findings

Name .....Date .....
Address .....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
.....

(Fig. 6.) Roentgenologic findings slip, grey paper, 5½ x 3½ in.

JOHN SMITH, M.D., F.A.C.P.
Subsequent Visits

Name .....Date .....
Address .....
Chief Complaints .....
.....
.....
.....
Physical Examination .....
.....
.....
.....
.....
.....
.....
.....
.....

(Fig. 7.) Subsequent visit slip, obverse side, 5½ x 3½ in.

Treatment

Date .....
.....
.....
Date .....
.....
.....
Date .....
.....
.....
Date .....
.....
.....
Date .....
.....
.....

(Fig. 8.) Subsequent visit slip, reverse side, 5½ x 3½ in.

Name .....No. .....Date .....
Address .....

(Fig. 9.) Filing card, 6 x 4 in.

JOHN SMITH, M.D. No.

Name .....
Address .....
.....

(Fig. 10.) Filing envelope, thick manila paper, 6 x 4 in.

Conclusions

This system has the following advantages:

(1) Facility of clinical notations.

(2) Unlikelihood of possible omissions.

(3) Systematic history taking.

(4) An orderly sequence of physical examination.

(5) Completeness of laboratory information.

(6) Availability for statistical conclusions.

(7) Notation of negative as well as positive data.

(8) Facility of adding subsequent data.

(9) Adaptability for expansion.

(10) Ready accessibility.

CLASSIFICATION OF MINOR NEUROSES AND PSYCHOSES

Samuel F. Gorson, M.D.,
Atlantic City, N. J.

Instructor in Neurology at Jefferson Medical College, Philadelphia, Pa.; Neurologist, Atlantic City Hospital

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

Classification of mental diseases has been made by various authors, teachers and psychiatrists, each particular classification probably being ideal to that author either as to his idea of teaching or the theories entertained by him as to the mechanism of the psychoses. It is said that there are at least 40 different classifications of mental diseases; some on a basis of etiology, some on symptomatology, and some psychologically. Each has its faults and its good points. In making a classification, we should not base it on symptomatology or etiology alone, but must take into consideration all factors, including the general make-up of the patient and his reaction to the strains of life; for, after all, classification is only the grouping of diseases for the purpose of diagnosis and treatment.

Seeing a neurotic is a daily event in the practice of most physicians. His symptoms are so well known and characteristic that his history is not gone into, and he is placed in the category of neurasthenia. The terms *neurosis* and *psychoneurosis* are used synonymously by most writers. They are clinical entities and should be classified as such, but in the light of various theories, concepts, and controversies going on in the last century, the general practitioner is at a loss how to classify them. Hysteria was at one time the only classification of nervous diseases, and it was thought due to some disturbance of the womb. This idea is now as obsolete as the conception entertained by the ancients that all mental diseases were due to the devil or evil spirits, and that only by punishment or incantations could the patient be cured. As psychiatrists formulated new conceptions, new classifications appeared. With the development of physiology and anatomy, all mental diseases were interpreted in terms of diseased organs. This theory was soon exploded and the new idea of a psychologic conception of neurosis was advocated by Charcot, who held that pathogenic ideas were capable of producing hysteric manifestations. Hysteria was defined as a disorder of the subconscious mind in which the psychic and physical symptoms are due to autosuggestion.

Following Charcot, Janet formulated the notion of dissociation of ideas and personality. Jung, Adler, Breuer, all had their special theories and concepts, and as these were advocated new classifications appeared. After Beard, in America, published his paper on "neurasthenia", all neurotic manifestations were classed under this term which became the catch-all for every neurotic condition. It was Janet who introduced the term *psychasthenia* to designate a group of functional nervous disorders characterized by doubts, fears, obsessions and impulsive acts. *Hypochondria* is a term used to denote a nervous condition characterized by somatic complaints, the patient's attention being directed to his organs.

Considering a classification of the minor neuroses from a clinical standpoint, we have the following:

(1) *Hysteria.* In this group are included individuals of a highly neurotic and unstable make-up, who present symptoms characterized by periods of depression, emotional episodes, increased susceptibility to external impres-

sions, and marked motor, sensory, and psychic disturbances.

(2) *Neurasthenia.* Embraces patients whose symptoms are characterized by nerve exhaustion and fatigue, defective mental concentration, difficulty in thinking, periods of hypochondria, irritability and various other physical symptoms, mostly subjective in character.

(3) *Psychasthenia.* This group is marked by obsessions, phobias, morbid fears, doubts and anxiety. This affection is usually chronic in character and built upon a condition of constitutional inferiority.

(4) *Anxiety Neurosis.* In this group are included those cases characterized by a morbid state of fear and anxiety, associated with nervous and physical symptoms; i.e. feeling of impending death, dread of disease, palpitations, sweating, fainting, dyspnea, etc. The state of anxiety exists throughout the whole of consciousness.

(5) *Hypochondria.* Includes cases characterized by somatic complaints, in which the patient tends to fasten his attention on his organs as the cause of his trouble.

(6) *Traumatic Neurosis.* A functional nervous syndrome which follows accidents and is not accompanied by any organic lesion.

Freud, on the other hand, divides the neuroses into 2 groups: the "actual neurosis" and the "psychoneurosis", the difference being that in the first there is an actual physical disturbance within the organism aside from the psychologic factor causing it, while psychoneurosis, on the other hand, illustrates the various stages of regression to infantile points of fixation. Under actual neurosis, he groups: (1) *Anxiety neurosis;* (2) *neurasthenia;* (3) *hypochondria.* Under psychoneuroses are grouped: (1) *Conversion hysteria;* (2) *anxiety hysteria;* (3) *compulsion neuroses.*

We must not forget that although we see pure cases of hysteria, neurasthenia, and other forms of neurosis, mixed neuroses are quite common.

A good deal of controversy has been going on as to the proper classification of psychosis. Kraepelin, in his latest edition, favors the symptom-complex groupings. It is to him that we owe the clear notions of dementia præcox, manic depressive insanity, and paranoia. His scheme of classification also has its faults, especially in the number of subdivisions; although the tendency today is to follow his scheme. The majority of classifications are incomprehensible to the student and general practitioner, and this is one of the reasons that physicians do not take an interest in psychiatry. Simplicity should be the keynote in the classification of the psychoses, which can all be placed in natural groups on the basis of their clinical history, course and etiology. It must not be forgotten that in individual cases there is often a transition of the main types of reaction.

For practical purposes and simplicity, the following scheme of classification is useful:

(1) *Toxic psychoses.* Caused by infectious fevers, alcohol, pregnancy and various poisons. In this group are included delirium, stupor and confusion. These 3 conditions are closely related, as they are all characterized more or less by illusions, unsystematized delusions, incoherence, and confusion, one condition merging into another. This group is not based on any emotional state and usually plays a secondary part.

(2) *Manic-depressive psychoses.* Under this group: (a) Mania; (b) melancholia; (c) mixed insanity. Here the emotional state plays an important part. In mania, the patient passes through a state of emotional exaltation, i.e. flights of ideas, psychomotor activity, unstable delusion, some hallucinations, and little clouding; in melancholia, that of emotional depression, i.e. psychomotor retardation, lack of activity, lack of ideas, dejected, prominent delusions and hallucinations, and some clouding; while in mixed insanity, through both of these phases. The tendency of this group is to recurrence and to recovery.

(3) *Degenerative type of psychosis or heboid paranoid group*: (a) Dementia præcox or schizophrenia; (b) paranoia. In this group are included those individuals who are defective in mental and physical make-up. They go along until a certain period of life when they break down because of some defective mechanism. If this occurs early in life and

shows a splitting of personality associated with dementia, it is grouped under *dementia præcox*. If this breaking down appears later in life, we have the various forms of delusional insanities grouped under the term *paranoia*. The most prominent features of the dementia præcox group are the bizarre attitudes, stereotyped repetitions, visual and auditory hallucinations, ideas of influence, emotional indifference, and negatavistic tendencies. Paranoia, on the other hand, is characterized by the delusional interpretations of ideas of grandeur, persecution and references.

(4) *Neuroses and psychoneuroses.* This group includes individuals of neuropathic tendencies. It is functional in character, characterized by exhaustions, anesthesias, phobias, depressions, paresthesias and mental fatigue.

(5) *Psychoses due to organic brain disease.* This group includes those cases due to syphilis, encephalitis, tumors, arteriosclerosis, and senility.

It does not matter what classification one follows, provided we maintain a consistent point of view regarding underlying causes. It is really impossible to make a rigid classification, for what today may be a neurosis, tomorrow may be a psychosis. Therefore, in classifying mental diseases, we should aim at a broader view, using the main groups which represent the morbid ideas and main reactions, the maladjustments to the difficulties and the realities of life.

ETIOLOGY OF THE MINOR AND MAJOR NEUROSES

C. Fred Becker, M.D.,
Camden, N. J.

Instructor in Nervous Diseases, Jefferson Medical College, Philadelphia, and Neurologist, Cooper Hospital, Camden, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

One of the most fascinating, interesting, and important subjects in the realm of medicine is the study of the neuroses and psychoses. No specialty is so detached that it should not interest and be of value to the general practitioner. No phase of general practice should lack interest and importance to the specialist. Countless times are neuroses associated with and sometimes greatly dependent upon definite organic disease. No patient should be relegated to the category of the neurotic until an exhaustive and thorough study has been made. Personally, I believe, and in reviewing literature I am convinced, so far as the neuroses are concerned, that the past has given us little to work upon but a good start; the present, a conglomeration of ideas, theories, and opinions that would give the Creator more difficulty to index than it did to assemble this wonderful human mechanism of ours. However, all this is not for naught. Out of this heterogeneous maze, the future will, I hope, give us something concrete and stable.

It is impossible in this paper to enumerate all the theories and causes; neither is it possible to go into detail with regard to those discussed here. I shall try to adhere to the factors of clinical importance and the theories of interest, eliminating as much as possible the fantastic.

In the study of 260 cases of neurasthenia, psychasthenia, anxiety neuroses, and hysteria, Strecker found definite organic disease in 46.1%. This percentage is very significant and behooves us not to look upon a few nervous symptoms lightly. The organic disease may not be the sole basis of the neurosis, but its discovery and treatment may play a large part in readjustment of the patient's nervous mechanism by raising his resistance.

Many patients suffering from hypertension, renal disease, arteriosclerosis, anemia, or syphilis, present nervous symptoms which sometimes entirely overshadow the disease and they are classed as neurotics with no further study and no treatment of the existing conditions, alleviations of which would be markedly beneficial to the patient.

In the realm of the endocrines we are faced with a complicated problem. Volumes have been written and volumes could and will be eventually discarded as our knowledge of the part they play in development of the human, both physically and mentally, becomes more accurate. During puberty, adolescence, child-

birth, and involution we find various nervous disorders, emotional states, and a dysfunction of the endocrine glands. On an average, the mental faculties do not fully mature until about the age of 18 years. In the transition from childhood to young womanhood and manhood, the physical and mental awakening are without doubt dynamic factors thrust upon a nervous mechanism still in the making, and burden it with many emotional conflicts. That at this phase of life *quality* must be present I feel can hardly be questioned.

It is asinine to assume that focal infection or any other disease is the sole cause of mental and nervous conditions. Likewise, it is to our discredit to neglect the care of diseased sinuses, tonsils, teeth, or bacterial foci anywhere in the body, the eradication of which might improve the patient. Very often numerous troublesome factors are found in the same individual. The effect of drugs, chronic alcoholism, excessive use of coffee and tobacco, and other indulgences must not be overlooked in certain types of cases.

That masturbation and lack of sexual satisfaction is the cause of neurasthenia, according to Freud, I cannot believe. There is no doubt that many neurasthenics and other psychoneurotics are subject to masturbation, sexual perversities, suppressed or unrequited desires. There are equally many who show none of these. The adult male who is subject to masturbation, has less difficulty in attaining his desires in the natural way than has woman. His practice and lack of self control are in themselves evidence of an unstable nervous system, rather than causes. Relieving the patient's mind of the worry that he has ruined his health, committed a sin, or has lost his manhood is simply a means of lessening the strain upon his nervous system. There is no difference in this from the readjustment of incompatibilities in marriage and otherwise, the change of environment or the eradication of any conflict that may predominate in the patient. Practically everyone has conflicts but there is an inherent factor, whether biologic, endocrine, physiochemic or otherwise that keeps most of us from slipping over the borderline.

In contending that sex trauma alone is not the sole cause of the neuroses and the psychoses, I do not wish you to feel that I do not appreciate the fact that it is of great importance, especially as to neuroses of the married. Sexual incompatibilities are numerous, and too often undiscovered until children result; and when this occurs the problem is very often a difficult one and they must needs suffer through shattered homes and the resulting effects. I do not discourage marriage, but to subject to a life of mental torture and conflicts those who are totally incompatible is, in my opinion, not consistent with the laws of nature and life. When I speak of incompatibility here I do not mean from the sexual standpoint alone, but taking into consideration temperaments and emotions that go beyond the pale of the average normal. Many of these individuals cannot stand restraint, the burdens and duties of a home, and writhe in the harness. Given a nervous system that is unstable and cannot adjust itself, associated, perhaps, with other conditions such as endocrine disturbances, it can be precipitated into neurosis with the inner conflicts manifested in various forms such as, hysteric paralyses, anesthesias, hyperesthesias, etc. The difference in reaction depends upon the qualitative make-up of the individual as a whole. From the medical standpoint these incompatibilities in married life are just as important as the incompatibilities and conflicts among those who are single. They may not be of the same nature but their effect produces the same results.

Emotional shock, excessive physical or mental strain, the conflict of self preservation of the soldier in war time, and trauma, cover too large a field for complete discussion in this limited paper. In examining many compensation cases and some 10,000 ex-service men suffering from various neuroses, many of whom were hysteric, I cannot resign myself to the so-called "pure traumatic hysteria". In these cases, I firmly believe there has been a preëxisting hysteric foundation. Those cases that come to court and where it is a question of dollars and cents, naturally deny any such preëxisting condition. Were the truth known, they probably have been in the category of the

neurotic for years. I cannot conceive of a well-balanced individual suffering a trivial injury and suddenly becoming totally disabled by one or other of the neuroses unless there has been an unstable background. True, we have cases where compensation does not enter, but here the history will give us quite a different picture preceding the trauma, as there is no necessity for with-holding it. I have seen many cases that I could not conscientiously diagnose as true hysteria for the very reason that the symptoms presented were so overdrawn and assumed by exceptionally good acting that they were better classified as suffering from *compensationitis* or were *traumatic gold diggers.*

Remarkable, spontaneous cures result in cases that have supposedly existed for months, almost immediately following the decision of the Court. I spent my younger days in the coal regions of Pennsylvania where traumatic cases occur a dozen to one in comparison with many other localities. I have seen and known hundreds of injured persons to return to their occupations after the average given time for recovery from a definite kind of injury, and the kinks and stiffness and contractures were removed or benefitted by a return to their vocations, which is true occupational therapy, beneficial both to patient and to industry at large. Today, in those same regions and everywhere else, hundreds and thousands of individuals are becoming human parasites and are being paid to sit in physiotherapy clinics. Do not misconstrue my statements, as I do not wish to throw any discredit upon the individual who really has a severe injury that needs attention. These clinics and compensation are necessary for this type of case and do a good beyond description, but when our laws compensate so-called pure traumatic hysteria they simply add one more exciting factor to an individual who lacks mental equilibrium or is bordering on the pale of such. These cases cannot and never will be justly decided by a jury ignorant of medical science, and swayed by the appearance of the plaintiff and the silver-tongued oratory of an attorney.

Most of us, or should I say all of us, have that primal instinct of escape from difficulties and dangers. The so-called "shell-shocked" soldier found the instinct of self preservation greater and took refuge under one or other of the neuroses. The sense of duty and esteem of their fellow men over-balanced this instinct in others, and they did not succumb. Whether it be war or civil life, self preservation or financial loss, trauma or mental shock, incompatibilities, sexual or otherwise, we all are subjected to one or more of them at various intervals during life, and react in different degrees. Some of us maintain an average balance, some of us recover that balance rapidly, others of us slip to the extreme.

The revolutionary changes in the mode of life in the past few years are tremendous and no doubt have had a decided influence upon many individuals. Speed is the keynote of travel and industry. With every tick of the clock distance must be lessened and production increased. This is often necessary, I grant you, and work is essential, but when it reaches the stage of the "man with the leash", hundreds and thousands of nervous mechanisms, lacking the stamina of their fellow men, slowly but surely break. The future generations may more readily adapt themselves to these conditions.

There is a decided difference in the morphologic and biologic make-up of all of us. A complex affair is the brain and its stem, the vegetative nervous system, the endocrine glands. They have their influence over our motions and reactions, our development and personality. Changes in personality at puberty are influenced by the sex glands. We have the torpid hypothyroid, and the excitable hyperthyroid. We have the unstable make-up through marriage into stocks of similar weaknesses. We have the resulting influence of shocks, mental and physical; toxic factors; environment; incompatibilities and conflicts without number; upon a nervous mechanism that is either able to combat them or must snap under the strain. Each individual is more or less a law unto himself and requires individual study. Creeping to the surface is that inherent factor, the quality of his mental mechanism. The ability to stand the so-called "slings and arrows of life", to maintain an

average balance of mental equilibrium, and adapt himself to conditions as they confront him, depends largely upon a mental make-up endowed with that endurance sufficient to cope with them.

PATHOLOGY OF THE MINOR NEUROSES AND PSYCHOSES

THOMAS B. CHRISTIAN, A.M., M.D.,
New Jersey State Hospital,
Greystone Park, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

The purpose of this paper is presentation of the general pathologist's point of view upon the relationship of the general body diseases to the minor neuroses and psychoses. The complexity of this problem and the dangerous ground upon which it rests is fully realized and, in the beginning, without offering an apology, too much is not to be expected in the final conclusions. Since these diseases are not the cause of fatal conditions *per se* little is known of the morbid changes in the body except by deductive inference. In a study of unsettled questions, as in the pathology of the minor neuroses and psychoses, we may either add to the sum total of knowledge or we may conclude various results which have a practical clinical bearing. There are many theories: heredity and dysfunction of the nervous system; anomalous organization of the cerebrospinal and sympathetic systems; biochemic toxic by-products; bacterial toxins; exhaustion of the dynamic elements in the central nerve cells; disorders of the endocrine functions; lack of hormone equilibrium; dissociation of personality; loss of normal flexibility of the synaptic functions of groups of neurons; repressed wishes and shock experiences organized by the subconscious mentor (Freudism). As it will be impossible in the time allotted to take up each one of the above in detail or in a general way, I will only hit the high spots of what I consider the most important.

And being a laboratory man myself I naturally lean toward the theories that the base of all our medical knowledge must be morbid anatomy and upon it must rest physiologic, bacteriologic, chemical and clinical pathology; and that the causes and pathology of the great majority of abnormal conditions of the mind and body actually exist regardless of whether we find them or not. And I would like to be able to show that all neurologic and mental disorders are explained by reference to morphologic or to physiologic alterations of the body, brain, endocrine organs, or what-not.

The writer has been performing autopsies for the past 15 years, many of which have been upon nervous and mental cases, and the number which fail to show definite brain diseases, but which do show a well marked chain of pathologic changes elsewhere in the body, has been strikingly large. This condition has been experienced by all doing this work, and I feel should be particularly emphasized. It has been particularly shown by Dunlap (Amer. Jour. Psy., Vol. III., Jan., 1924) that there are no gross characters of special pathologic significance in dementia præcox and he also shows the lack of structural findings. This gives encouragement to those who look upon dementia præcox as a purely functional disease and also to those who classify the minor neuroses and psychoses as purely functional with no pathology as the cause. However, with our present very meager knowledge of the structures, as well as the organic needs of the nerve cells, and our fragmentary information concerning cortical architecture, I feel that there is abundant opportunity for investigation of these processes along organic lines. I must call attention to the fact that organic pathologic moments acting on the nervous system do not always leave ready demonstrable structural changes and that we must therefore differentiate clearly between those processes which cause visible alterations in the nerve cells and those which, although still clearly organic in nature, do not result in such alterations; and must therefore acknowledge that the absence of clear-cut structural lesions in a given disease by no means excludes an organic etiology. This can be shown in headaches from cerebral

congestion and fainting spells from cerebral anemias, which result from toxins.

The minor functional neuroses and psychoses rarely if ever kill the patient, and by far the great majority of those who do pass away die from some intercurrent disease; usually after years of physiologic changes and often even advanced senile alterations have obscured the pathologic picture. Apparently, the great majority of terminal diseases give histologic alterations which are more apparent than those resulting from the long standing neuroses or psychoses, and we are in danger of observing and recording changes which result not from the psychosis but from the physical disease.

In determing whether a disease is organic we cannot rely on evidence obtained under the microscope by the ordinary methods used. We must differentiate sharply between diseases that are organic in nature and the smaller group which leave behind observable structural changes in the nerve cells. Many organic processes, as for example many acute poisonings, such as oxalic acid poisoning, result in no structural alterations of the nerve cells demonstrable by our present methods. When we consider the very complex chemical composition of nerve cells and the entire possibility of submicroscopic structural changes, I think that we must differentiate between structural changes of the sufficiently coarse type to be demonstrable under the microscope and the much wider range of organic processes.

Because no demonstrable lesion of the brain and nervous system has been found in the functional neuroses and psychoses these disorders were considered purely functional, that is diseases of the mind and not of the brain. Many of us are of the opinion that there is sufficient evidence, both pathologic and clinical, to substantiate our opinion that the so-called functional neuroses and psychoses are in reality disorders of the brain and nervous system, and that the neurologic and mental symptoms are caused by these disorders. There is an abundance of biologic evidence that supports these views. The strongest argument against the belief that they are purely psychogenic in origin is the biologic fact that function is dependent upon structure. We cannot have function without structure and, consequently, disordered function must depend upon and be the result of disordered structure. In other words, we cannot conceive of a disordered mind and nerves with a perfectly normal brain and nervous system.

It has been shown by experiment (S. T. Orton: Amer. Jour. Psy., Vol. IV. No. 4, April, 1925) that certain organic diseases and disturbances that can cause death through their attacks on the nerve center, leave no consistent structural alterations in the nerve cells as studied by the methods usually applied to human material.

While the histopathologist is busy trying to find the explanation of mental and nervous diseases under the microscope, the clinical psychiatrist is going forward with his study of the psychoses much as if no anatomy of the nervous system exists. Kraepelin, as you know, carried descriptive psychiatry to its highest point and in one significant respect foreshadowed the future; namely, he studied the psychoses in a longitudinal rather than in the more customary cross section. He was interested in the life history of the psychotic. At about the same time, Janet was developing his work upon hysteria. His work was of tremendous significance. He concluded, as a result of his studies, that the symptoms of his neurotic patients could be explained if their past experiences were known. The symptoms of the neurosis were repetitions of actual experiences which had really been had in the past. This was the first great advance toward an interpretation of the psychic symptoms in terms of past psychic experiences—the beginning of what is now referred to as psychogenesis. This, you will recognize, has been the point of view so ably presented by Professor Freud and elaborated by the psychoanalysts. But to my mind the psychogenic etiology does not explain the actual precipitating cause of the psychosis. And because by present methods no pathology has been found in this type of case, they give an etiology which sounds reasonable with no organic etiologic basis present; and the pathology usually referred to as not being present is that of the

brain and nervous system. If the psyche can properly be considered as the function of the individual as a whole, then it is not essential that a pathologic explanation of the mental and nervous disease be found in the cortex. It may be found somewhere else. If the organs of the individual as a whole fail to function effectively, there may be a mental disease without central pathology. We have found in our examination of the functional nervous and mental disorders various degrees of defects of organs such as the thyroid, gonads, adrenals, and the circulatory system, and these defects were all of such a character that we would not expect the individual to be able to function efficiently, at least under stress.

I will emphasize the fact that I do not minimize the importance of psychogenic factors in the causation of some of the neuroses and psychoses, but I would place them in the rôle of precipitating factors rather than the principal causative factors. I recognize the fact that in many cases psychogenic factors like grief, worry, anxiety, shock, and a host of others, are present and undoubtedly play an important rôle in precipitating the neurosis or psychosis. I also recognize those nervous and mental diseases which are strictly hereditary, that is due to a decrease of the potential mental ion as transferred directly from one or both parents, and know that they are not well understood from a pathologic standpoint, and know also that they play a prominent rôle and lower the mental threshold so that somatic influences, which would otherwise pass unnoticed, become prominent.

Probably many of the minor neuroses and psychoses may be due to hereditary degenerations. The pathologic findings in many cases are not sufficient to demonstrate the symptoms present and for this reason our present ideas of the cause or causes are in a state of greatest confusion.

We must confine ourselves to the pathology of some toxic or infectious process, or to some focal infection area, to organic visceral disorders, especially early tuberculosis, and other chronic diseases which lower the bodily resistance and may cause a mild degeneration of the nervous tissue.

Now, in the last few years we have witnessed the result of an epidemic, infectious, organic disease that involves primarily the nervous tissues; I refer to encephalitis lethargica. In this disease we have found all manner of disturbances of function and of structures and the high mortality has given opportunity for many attempts at correlation and also for comparing observations with the more recent researches in anatomy of the central nervous system. The results have been to emphasize the obvious conclusion that whatever the function may be it can only manifest itself by means of existing structures.

Toxemias play a rôle in the pathology. In some cases, the toxemia producing the psychosis or neurosis is not bacterial in type but is a chemical combination originated by bacteria. In this connection the toxemias from focal infections may be mentioned. Focal infection has become of late a subject of special interest for neurology and psychiatry. In point of fact, focal infection has been considered to be causally related to the functional psychoses and its elimination has been claimed to result in a striking increase in the number of recoveries in this group. In speaking of foci of infection, I do not wish to open up the pros and cons of this question from the mental and nervous side; but, from the standpoint of the mechanisms and problems of focal infection it behooves the psychiatrist to familiarize himself with the possible relationship of the teeth, apical infections, gums, tonsils, chronic bronchitis, gastro-intestinal stasis, including gall-bladders and appendices, genito-urinary disorders, especially the tubes and ovaries, cystitis, prostatitis and pyelitis. This should be done early in the mental manifestations so that subsequent reactions to these foci may be avoided. In the development of late mental manifestations due to absorption from a focus of infection, early hereditary deficiencies must be thought of as strongly predisposing factors. Vice versa, the young individual with hereditary deficiencies should be guarded against development of focal infection, and future mental and nervous manifestations avoided. Foci of infection are active and inactive. The inactive types play no part in dis-

tant metastases but the active foci are constantly dumping a small dosage of infection into the general body, and the damaging action of the toxins far outweighs their reactive immunizing qualities. This is on the same principle that if one lightly scratches the back of one's hand once or twice no damage is done, but when this is kept up constantly day in and day out for years irreparable damage will eventually result. The principle is the same as in the organic psychoses when you get neurasthenic symptoms in early paresis and tabes where a few cells are irritated by the treponema and its toxins; then the cells die and after years of this infection you get the massive condition which is arrived at only after destruction of cell by cell and fiber by fiber.

When the action of these toxins is not directly active upon a group unit, like the brain, but is retro-active from another group unit, such as the vascular system, and thence to the brain, the secondary altered physiology may be clinically of greater importance while the primary altered physiology was the irritating factor. This is true in arteriosclerosis. There is probably no other single degenerative morbid lesion found in the brain of mental cases more constantly than blood-vessel changes. The arteriocapillary walls are thickened by cellular hyperplasia, fibrous deposits or perivascular round-celled infiltration caused from a large group of diversified causes. This leads to alteration in blood pressure, changes in the osmotic membranes, changes in the oxygen tension and CO_2 accumulation within the cells, to say nothing of the complex possibilities of carbohydrate and protein chemistry within the protoplasm of the surrounding vital cells.

The fact that many individuals harbor focal infections and are not psychotic nor neurotic is no argument against the doctrine that focal infections can cause a neurosis or psychosis. We know that only a small proportion of patients contracting syphilis develop paresis. In the same way we know that only a small proportion of those indulging excessively in alcohol develop a psychosis. Such factors as heredity and psychogenesis play an important rôle.

Austin Fox Riggs (Mental Hygiene, Vol. VI., No. 2, April, 1922) says that nervousness itself is a condition as a result of imperfect response on the part of the victim to the social aspects of his surroundings. "I wish," he says, "to add most emphatically that nervousness is not a disease, but a disorder. It is not *auto-intoxication.* It is not *weakness of the nerves,* or exhaustion, or fatigue, nor is it a perquisite of the idle rich. It is none of these. In other words, I want to make it quite clear that it is purely and simply the result of maladjustment on the part of an otherwise perfectly sound, essentially normal person, and therefore it is both curable and avoidable." A statement with which I do not agree, as I think all nervousness is symptomatic of some form of pathology. Organic disease lowers the threshold and lessens the repressive power of the individual, and, therefore, may be the occasion of an outbreak of neurotic symptoms.

Some others consider neurasthenia and hysteria as not diseases but conditions. I would like to classify them as diseases. Just what is a disease? A disease is a reaction to an injury or a stimulus producing cellular and group unit changes responsible for an altered physiology which is characterized by subjective symptoms and objective signs. Certain stimuli are specific in that they produce at all times definite and similar group changes. The Treponema pallidum is a good example of this and cerebrospinal syphilis is one of the results. We are not concerned with these changes because they are well known and stand out definitely. Other stimuli are not specific in that they do not produce a recognizable similar lesion, and indeed in many cases the same stimulus produces entirely dissimilar lesions. In this study of disease the body is very definitely divided anatomically and functionally into group units, that is, cardiovascular, endocrines, renal, hepatic, cerebrospinal, and so forth. No one group can exist without the others. Therefore, when one group is involved in morbid alterations all other groups must be affected in some manner by that alteration, either directly or indirectly. When a given etiologic factor affects one group, it

also affects other groups in proportion to its virulence, ad those groups are retro-active on still other groups not affected directly by the original stimulus. Thus, in any disease the body as a whole must be taken into consideration in the complete study of that disease. The brain is undoubtedly the most important group unit of the body so far as mankind is concerned but not so far as the body itself is concerned. All others are of equal importance. The adrenals, about which we do not know all, are small organs tucked on the upper poles of the kidneys, and yet without their function death would speedily take place. And since little is known of them they must be involved in the neurasthenias and hysterias, as they certainly do have something to do with the emotions. We do know that the substance adrenin poured into the blood stream by the adrenal medulla, is capable by itself of producing the visceral alterations characteristic of major emotions. Adrenin can accelerate the heart beat, increase arterial pressure, shift the blood from the abdominal organs to the limbs, stop the motions of the gastro-intestinal canal, check the secretions of the digestive glands, dilate the bronchioles, augment the sugar content of the blood, and beside these effects, can speed up the rate of metabolism, hasten the clotting of blood and quickly abolish some of the effects of muscular fatigue. All of the above are found in various forms of nervousness. The liver is also now known to contribute to the circulation not only glucose from its store of glycogen, but also a protein substance which has both a cardio-accelerator and a pressor effect. And the thyroid gland we now recognize as the chief regulator of the speed of oxidation changes in the body, and as working in conjunction with the ovaries.

With the possibility that these glands of internal secretion can be brought into action under emotional excitement, and altered by stresses in early and late life from environmental difficulties, they are probably still in later years altered in physiologic action, and that may account for many of the symptoms of the neuroses and psychoses. The altered gland system may account for an altered physiology of the brain which is in turn apt to assume primary importance and completely overshadow an infectious morbidity or physiologic changes elsewhere, which may be at the bottom of a given case because of the prominence of the mental side. This is often true in viewpoint of the internist since he is only too ready to turn the mental case over to the psychiatrist without a complete and extensive physical examination.

A number of cases of minor neuroses and psychoses show arterial hypotension with systolic pressure from 90 to 110, with physical and vital undertone, with lessened physical vitality and underweight. Other cases show visceroptosis, and some dropped, phthisenoid type of chest and flat feet from relaxed muscular tone. In other cases, a tendency to general catarrhal conditions of the mucous membranes is present, particularly of the gastro-intestinal tract. Some cases show a tendency to development of the chlorotic types of anemia.

In regard to examination of the blood in mental and nervous cases, it has been the experience of myself and others that the patient with nervous and mental symptoms, but free from organic disease, gives a blood analysis which does not overstep the usual normal limits. On a series of patients with minor neuroses and psychoses, but with no clinical evidence of organic disease, complete blood counts were made and in addition the determination of non-protein nitrogen, urea nitrogen, uric acid, creatinin, sodium chloride, sugar and in some cases cholesterol. The values found were approximately within the expected normal limits. This will usually eliminate certain types of pathology but does not eliminate those cases with the heart 2/3 the natural size or cases with under-developed gonads, adrenals or thyroids, that may show normal blood pictures.

In some cases it has been found, through roentgenologic observations of the gastro-intestinal tract, that there were changes in the motor functions, and in some of them there was retention of barium in the colon for a period longer than 5 days. In examination of other cases by basal metabolism we found that the suprarenal cortex and lipoid metabolism

was involved and the basal metabolic rate was lowered. Because the basal metabolic rate was lowered we concluded there was probably a physiologic impairment of the suprarenals. As has been observed by Aub and others (W. S. McCann: Calorimetry in Medicine, 3: 1, Feb., 1924) a low basal rate follows removal of the suprarenal glands.

Referring to the pathology of specific groups of these neuroses and psychoses, especially the psychoneuroses and neurasthenias, they may or may not have discoverable pathology. It is important for the physician always to keep in mind the numerous factors upon which the efficiency of the individual depends in handling these cases. It may depend upon the efficiency of the various systems of the body, cardiorenal, respiratory, etc., as has been mentioned above. Also, is it important to remember that defects in any of the systems are being compensated for more or less in a variety of ways, while any inferiority in the endocrine or central nervous system strikes in a very fundamental way at the behavior of the individual.

In many of these cases it is impossible by present methods to find some simple organic condition and no derangement of the endocrine system. But many cases of psychoneuroses have back of them an organic inferiority. On the other hand, there are many cases where we have no evidence of organic inferiority, and where it does not seem justifiable to assume any such crude anomaly, although it is always difficult to meet the dogmatic assertions of those who take it for granted that there must be some anomaly as the basis of the trouble We have all seen a number of cases where there is no known physiologic basis or organic inferiority to explain the clinical picture. And yet other cases with a similar clinical picture will show such signs as hyperidrosis and flushing, large sella turcica with possible erosions of the dorsum, but with normal sugar tolerance and normal basal metabolism. Among females you will find many cases in which menstruation has never been normal, starting often with profuse menstruation at an early age, and these cases indicate a defect in the endocrine balance. Similar cases of neurosis are found after pelvic operations.

According to all the text-books on pathology, neurasthenia presents no morbid anatomy, and under this heading it therefore remains to discuss the pathogenesis and nature of the disorder, especially under 3 headings, as the toxic, defect in development, and the psychic. The close resemblance which exists, superficially, between the irritable weakness resulting from severe bodily intoxications and the fatigability and hypersensitiveness of the neurasthenic state has naturally led to the assumption of the presence of a toxic state as the explanation for development of neurasthenia. This is rendered plausible by the occasional development of neurasthenia following some infectious disease. And if a demonstrable intoxication cannot be found it is always possible to fall back upon some hypothetic autotoxin, fatigue product, endocrine gland disturbance, or what not. Another theory which has been very widely accepted and which again endeavors to establish a structural basis for the origin of neurasthenia, would include it with those conditions which are based primarily upon faulty construction. Such a view does not conflict with the toxic theory nor with the concept of a truly psychic origin. That all persons are not equally endowed with ability to withstand stress, be this toxic or the prolonged demand upon the functional vigor of the organism, needs no argument. Experience during the World War seems strongly to suggest that even the most carefully selected and, judging from their past records, vigorous and healthy individuals may develop neurasthenia, provided the stress be sufficiently great. It seems therefore hardly a sufficient explanation to allege that the individual who succumbs was of inferior constitution.

All cases of neurasthenia are not purely functional and it is difficult to differentiate the functional type from the traumatic neurasthenia clinically. In the true traumatic neurasthenia you have a real pathology in the brain resulting from injury to the brain, like some localized thickening of the meninges, or

perhaps a collection of fluid in the subarachnoid space shut off from surrounding healthy parts by adhesions. At the site of the bruise, the brain has become anchored to the dura mater.

In referring to another condition called *psychasthenia* there is from a pathologic standpoint no definite known pathology. The pathogenesis is extremely vague and indefinite. The facts of heredity and the age of onset do, however, tend to suggest the existence of some deficiencies in structure the nature of which is unknown. Janet, analyzing his most admirable exposition of the facts of the disorder, comes to the conclusion that the essence of it consists in a prolonged "lowering of the psychic tension" with defective grasp of reality. Alcohol, febrile intoxications, absorption of attention and sthenic motions will produce this effect. These considerations, however, offer no real explanation for the lowering of tension, although there is a suggestion that any condition which results in enfeeblement of the organism such as disease, fatigue and depressive emotion, may precipitate the disorder.

As to the neurosis called *hysteria* there is no known gross pathology.

As headache may be a symptom of any of the neuroses and psychoses and also a symptom alone it may be well to say a word about its pathology. It has not been definitely proved what exact structures are involved in headache, but it is possible that many different structures may be involved. The brain itself is said to be insensitive to pain. The meninges are highly sensitive to pain, and this may be provoked by pressure, as by a tumor, or by congestion from various vascular disturbances, acute or chronic inflammation or thickening, with pressure upon the nerves which pierce it. Diseases of the bony part of the skull, the periosteum, the pericranium or epicranium, are all at times the cause of headaches. Small apertures exist in the aponeurosis of the cranial muscles, in the periosteum of the skull and the skull itself, through which the blood-vessels and nerves inside and outside of the skull are closely related, and very little swelling suffices to produce pressure upon them. The pericranium is continuous with the dura mater through these apertures, the sutures, and through the orbit and sphenoidal fissure, and the latter is continuous with the sclerotic of the eye. The holes in the aponeurosis of the occipitofrontalis are, according to Campbell, less yielding on top of the head, and there is greater liability to pressure on the nerves and blood-vessels there, than nearer its margins where the apertures are loosely woven. The front half of the head is supplied by the fifth nerve, the posterior half by the occipitals, greater auricular and Arnold's nerves. Thickening of the cranial bones, as well as of the meninges, has been found in chronic alcoholism, chronic renal disease, and general paralysis of the insane. Direct involvement or pressure upon the bones or the meninges are probably accounted for by the variation of blood supply. Febrile headaches probably produce pain through congestion. The mode of production of toxic headaches is uncertain unless they are caused from congestion of the blood-vessels caused by toxins circulating through them.

There is another system of the body that, when more is known of it, may give some explanation of the pathology in functional neuroses and psychoses, and that is the involuntary nervous system. Our knowledge of the involuntary nervous system has been in the domain of anatomy and normal physiology rather than in that of pathologic physiology. The English school holds that the involuntary nervous system is composed of 2 parts, the sympathetic system proper and the parasympathetic system, including the cranial autonomic and sacral autonomic. The sympathetic system is not a complete system, but consists of purely excitor neurons. All the afferent fibers have their nutrient centers in the posterior root ganglions, and no sensory cells exist in the lateral chain. The sympathetic system proper is, therefore, essentially a motor system. This conception has served as a decided check on attractive speculations concerning the functions that would necessitate sympathetic sensory reflex limbs, and leaves no adequate explanation of clinical phenomena otherwise satisfactorily explained.

In the study of this whole situation, trying

to find an actual pathology in the minor neuroses and psychoses, we cannot at the present time come to any definite conclusions for every case. But we must consider that the pathology of most of the cases of minor neuroses and psychoses varies and lies in the brain proper, the basal ganglia, the medulla, the sympathetic system, and the ductless glands, and this gives interest where physiology and psychology, pathology and psychiatry meet.

SYMPTOMATOLOGY, PROGNOSIS AND TREATMENT OF MINOR NEUROSES AND PSYCHOSES

William H. Hicks, M.D.,
Newark, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

This paper is confined to a brief consideration of the symptoms, prognosis and treatment of the minor neuropsychoses variously designated as neurasthenia, psychasthenia, cerebrasthenia, obsession psychosis, hypochondria, incipient hysteria, hyperthymia, dysthymia, mnemoneurosis, etc. The clinical aspects and manifestations of these various syndromes are much alike; a technical differentiation is only of academic value; the principles of care and treatment of the entire group are practically identical.

Savil, of London, and Peterson, of New York, estimate that more than 1/3 of the patients seen by neurologists and psychiatrists in our large cities suffer from these neuropsychoses.

The cardinal physical sign of these diseases is loss of general bodily tone: manifested, objectively, by fine tremor, heart-hurry, palpitation, dilated pupils, increased deep reflexes; and, subjectively, by a feeling of general fatigue, gaseous indigestion, pain and parasthesias in any or many parts of the body, especially in the head and spine; frequent desire to urinate; feeling of tremor throughout the body; spots before the eyes, ringing or roaring in the ears and vertigo. Mentally, these patients experience a feeling of apprehension or anxiety with varying degrees of depression and a tendency to weep. They have attacks of panicky fear that are often very distressing. They are irritable, cranky and lose objective interest; sleep is restless, and disturbed by terrifying or disagreeable dreams, and the appetite is absent or capricious. They are tortured by imperative thoughts, obsessions, phobias and topalgias, and their sexual urge or potency may be increased, decreased, hypersensitive or perverted.

A patient may have a few or many of the symptoms just enumerated, which are prone to vary from day to day and from week to week. These patients have good days and bad days although some will tell you they have bad days and worse days but no good days.

The symptoms of the major psychoses, such as dementia præcox, manic depressive insanity, and paranoia may be very apparent even to a layman and yet the patient himself is wholly oblivious to his condition and insists that he is perfectly well and never felt better in his life. They have no insight into their condition. In sharp contrast with the major psychoses, symptoms of the minor psychoses leap into the field of consciousness at the very outset of the disease and there remain as subjective realities until the morbid syndrome runs its course. The patient knows he is ill but the physician is often unable to find confirmatory objective evidence of disease. Most of these patients have been cheerful and happy, interested in their affairs, industrious and ambitious until overtaken by the disease in question, and they show most convincingly that they are anxious to get rid of the apathy, indifference, depression and suffering that has brought great disaster to their normal habits of thought, feeling and conduct and they go from doctor to doctor and clinic to clinic in search of relief.

The symptoms of the minor neuropsychoses, to use the words of M. Allen Star, "develop slowly or rapidly, come to their height, remain for some time, subside gradually until finally they all disappear and the patient recovers"; and strange as it may appear they rarely pass into true insanity and they never cause a fatal

termination except by suicide, a very infrequent occurrence; 90% recover from a given attack. The course of the disorder varies from a few weeks to many months. Some do not fully recover. Many patients are prone to recurrent attacks all through life. Sometimes a few months intervene between the attacks; sometimes a few or many years. The brief and inadequate outline of the symptoms and course of these diseases which I have attempted, could, as you well know, be elaborated into a volume.

Now, what is the physician going to do about it? Cases of neuropsychosis, like the poor, are always with us. There is not a physician in this hall who has not had to deal with them. The major neuroses and psychoses, organic or functional, such as the scleroses and true insanity, are by no means as frequently met with. The problem of treatment is primarily that of the patient's confidence in his or her physician. This confidence can be secured only by the physician who approaches the case with an open mind, a sympathetic understanding and a persistent, untiring study of the individual under treatment. It is not only useless but harmful to tell these patients there is nothing the matter with them or to laugh at them or bawl them out, or urge them to stop worrying. Stop worry! As well order a patient with diabetes to stop passing sugar, or a person with measles to suppress the cutaneous eruption.

The suffering of these individuals is increased and prolonged and at times the patient is driven to suicide by the hard, unsympathetic attitude of family and friends, who are often misguided and misinformed by a physician who does not regard these emotional disorders as clinical entities or real diseases.

There is no specific treatment for these neuropsychic complexes. Even so, there is no specific treatment for most of the physical diseases. There is no specific or even uniform treatment for rheumatism, scarlatina or influenza, but this does not justify neglect or indifference by the physician to whom a patient has appealed.

Infectious diseases are self-limiting. Some run their course and the patient recovers without any treatment or advice. But the judgment and advice of a competent physician in the care and management of acute infectious diseases have lessened suffering and saved many lives. His knowledge, study, training and experience fit him above all others for advising as to the best methods of managing and combating morbid conditions, both physical and mental. An overwhelming majority of people realize this fact and have implicit confidence in the regular medical profession. As yet but a small minority of the population abandon the regular physician to put themselves in the hands of single method manipulators, cult-fadists and charlatans. It is from the rank and file of neuropsychopaths that the charlatans draw their victims; and the attitude of the regular physician toward these patients is largely responsible for this aspect of the situation. If the regular physician would give to this class of patients the same persevering, sympathetic attention and the same study and effort he devotes to other forms of disease, people who are unfit to treat human ills would soon be looking for vocations for which they are better qualified.

"What can we do?"—you ask impatiently. You can do much. Study the patient carefully and examine him thoroughly. Treat the patient rather than the disease; and don't forget William James' definition of an individual's self. "In its widest possible sense," says Prof. James, "a man's self is the sum total of all he *can* call his; not only his body and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his lands and horses, his yacht and his bank account. All these things affect his emotions and feelings, direct his thoughts and influence his conduct." Sir Clifford Allbutt advises that the first step in the treatment of a neurasthenic is to treat the physician who is to take charge of the case.

In every case the physician should make a thorough search for factors mentioned in the etiologic section of today's symposium, covered by another paper. In many cases some of these factors are found and may be the cause of the neurosis; or they may merely influence the course of the disease; or they may

simply co-exist and have no more to do with the neurosis in question than an infected tonsil has to do with an attack of malaria, or a decayed tooth with the symptoms and course of paresis or locomotor ataxia. Clearly, therefore, every case needs the searching, discriminating analysis of a physician, who should attempt to correct all physical defects so far as is possible and to raise the whole body to the highest degree of physiologic efficiency.

After the physical examination has been completed, the physician should lay aside his stern reserve, his stiff, autocratic mien and enter into a cheerful, chatty, heart to heart talk with his patient. Find out what part of the patient's self, as defined by James, has suffered misfortune or disaster. Then teach him what he ought to know about his disease. Tell him that he has a real disease; a disease that affects the emotions, the sensations and the feeling of well being, just as measles affect the skin, rheumatism the joints, and typhoid fever the bowels; that his symptoms will run a natural course; that it is usually a prolonged course; that he is likely to have good days and bad days; that he would, in all probability, recover even though he had no treatment, as the disease is usually self-limiting; that by a little guidance in the right direction and by the use of properly selected remedies, the keen edge of his suffering can be taken off so that his fortitude and courage will the more easily carry him through; that the disease does not cause insanity or terminate in death. The patient's family should be informed as to the character and course of the disease in question and made to understand how they can most efficiently coöperate in the care and treatment of the patient. By some such method of psychotherapy as just described the morale, confidence and hope of the patient is greatly improved and strengthened; the problem of treatment simplified and the patient rendered more manageable.

This method of rational, persuasive, educational psychotherapy has been employed from time immemorial by a large number of physicians, either purposely or incidentally, and we now know that the practice is fundamentally sound and scientific. This form of psychotherapy differs radically and fundamentally from Freud's psycho-analysis, both in theory and application. Freud's system is based upon a far-fetched metaphysic or psychologic assumption. He assumes, without an iota of concrete scientific proof, that all neuropsychoses, not demonstrably due to physical lesions, are caused by sexual trauma, subconscious inhibitions, suppressed or unrealized libido, and can be cured by interpreting the patient's dreams or by digging up from the realm of the unconscious some obscene fancy or experience that had been forgotten since childhood.

Dr. Dercum, in his "Physiology of the Mind", maintains that Freudism is unscientific, incomprehensible, and unthinkable. The trouble with Freudism and with all cults evolved out of the conflicting theories of present day psychology is that their advocates are intoxicated by the exuberance of their own verbosity. The method of psycho-analysis invented by Freud and practiced by his cult, is closely related to the theory and practice of hypnotism; for it was to develop his own invention that Freud abandoned hypnotism which he had advocated and practiced for years, and for which he claimed brilliant clinical results.

Now, there is not a physician in this hall who does not know down deep in his heart that hypnotism as a therapeutic measure is utterly worthless and impracticable. He knows he cannot hypnotize his patients, and would feel foolish should he attempt it. From one's seat in the audience, hypnotism does seem easily induced by the itinerant showman, the prestidigitateur or the long-haired professor of mystic, transcendental pseudo-psychology. But we all know that if the phenomenon of hypnotism exists at all it can be induced by so few individuals upon such a limited number of people that it is useless in practice.

But Freud's invention most ingeniously overcomes all limitations, by having the patient relate fragments of dreams, speak out his thoughts at random or tell what comes into the field of consciousness when he hears a so-called "key word" spoken. The per-

former selects, as sexual symbols, such fragments of thought, bits of experience or contents of a dream as he can plausibly fit into his already postulated theory of erotic complex.

So it is obvious that psycho-analysis even though vastly easier to perform than hypnotism is not a wit more rational or comprehensible and is based upon such an intricate and complex system of empiric symbols that few have time to bother with it.

William James referred to psychology not as a science but as a hope of science. Wundt, the celebrated German philosopher and psychologist, opposed the establishment of a separate chair of psychology on the ground that no common examination schedule in psychology could be devised since every professor had his own special ideas as to what psychology really was. A glance through some of the innumerable text-books and periodicals on the subject but convinces one of the painful confusion and conflicting theories of present day psychology. Indeed, there appear to be almost as many systems or schools or theories of psychology as there are writers on the subject. Therefore, it is obvious that any system of therapy based solely on metaphysics or speculative psychology must of necessity be far-fetched, untrustworthy and difficult in technic. Then let us come back to terra firma and concrete facts.

The "man who relies upon psychotherapy in any form when his patient needs a course of blue pills and Carlsbad salts", says the British neurologist, I. G. Cobb, "is either an ignoramus or a quack". The general treatment of the neuropsychoses under discussion is based upon clinical experience and is largely expectant and symptomatic. Gaseous indigestion, constipation, headache, backache and insomnia should be combatted by appropriate remedies, familiar to every well informed physician. It is a mistake to tell the patient that his or her nervous syndrome is caused by some chronic disease upon which it happens to be superimposed, such as high blood pressure, diabetes, heart leak, rheumatism, pelvic disorder or menopause; because the neurosis may be a separate and independent condition and may run its course and disappear in spite of the fact that the chronic disease persists unchanged.

Patients, as a rule, know these chronic physical diseases cannot be cured and when told that their mental depression, fear, insomnia and general wretchedness are caused by a chronic physical disease they at once lose hope, feel that there can be no relief and that death or insanity is not far off. Nor is it wise to assure the patient that her nervous disorder is caused by focal infection and that immediate recovery will follow the removal of tonsils, teeth, appendix, gall-bladder or some pelvic organ or neoplasm; for this statement is likewise often untrue. Quite often an operation does not shorten the course of the neurosis or prevent a recurrence. Of course focal infection should receive attention in any patient whether a neurosis is co-existent or not.

The time allotted for the paper does not permit more than a brief statement of a few general principles which should govern the care and treatment of these diseases. A detailed discussion of modes of living, exercise, rest, vacations, travel, climate, glandular therapy, hydrotherapy, electricity, physiotherapy, drugs, etc., is clearly impossible. Any way, these remedies are fully considered in numerous text-books on the subject. However, let me emphasize the fact that the diet of most of these patients should be a well-balanced, mixed food, rich in vitamins B and C—the so-called antineuritic and antiscorbutic vitamins.

It is highly interesting and illuminating to know that Pavlov has succeeded in producing experimentally on the higher animals the very neuropsychoses we have been discussing in today's program, and has separated them into 2 types—the excitatory and the inhibitory. He demonstrated that our old friends, the bromides, act upon the excitatory type almost as a specific and promote rapid recovery, but are harmful to the inhibitory type.

All cases of neuropsychosis experimentally induced by Pavlov recovered spontaneously; some within a few days or weeks; others after several months or a year.

In closing, I cannot forbear calling your

attention to the work of Dr. Pavlov, Russia's great medical psychologist, who for 25 years has been patiently experimenting on the higher animals in an effort to find a way to explain psychic and emotional phenomena solely upon reflex, physiologic grounds. By unique and original methods he has reached conclusions concerning the functions of the brain cortex that appear to be fundamental and far reaching. His experiments have produced results that have a minimum of error, are measured with mathematic precision and are susceptible of accurate repetition. There are just grounds for the hope that Pavlov has struck out across a new field of sublime possibility and has discovered the trail that leads to real, scientific understanding of the mind and emotions. As Francis Bacon was the father of experimental science, Darwin, the creator of a revolution in human thought, Pasteur and Lister, epochmakers in medicine and surgery, Pavlov may mark the beginning of a new era in psychology. His work on the conditioned reflexes of the cerebral cortex has already gone far toward establishing proof that thought and feeling are produced in much the same way as the beauty and fragrance of the flower or the venom and hate of the reptile.

DISCUSSION

Dr. Henry A. Cotton (Trenton): I have enjoyed the paper very much, especially the words about Freud which I think are perfectly true, perfectly correct. I had the pleasure of listening to Ferenczi, one of the recognized students of Freud, a year or so ago, and he made the very positive statement that psycho-analysis, as a therapeutic agent in the psychoses, is absolutely a failure. That statement was made at the New York Psychiatric Society with all the local psychoanalysists present. They didn't dare dispute the matter with Ferenczi.

I think these types of cases are perhaps the most difficult we have to handle. It takes a long period of time for them to recover. A great mistake has been made by the profession, by neurologists largely, in saying these patients are neurotic—as if that explains everything—and telling them: "Get hold of yourself and forget about it. Go out and take a trip or go abroad and forget about yourself". I don't know how many hundreds of cases I have seen where that form of advice has been given, and followed with more or less disastrous effects. A great many of these patients suffer extreme pain, especially a peculiar head symptom from which they have no relief. We frequently pick up a paper in New York and read that this or that person has committed suicide; and usually there is the statement that they have been in ill health for some time, which is very explanatory.

As regards the focal infection part of the story, I feel that in the last 10 years we have observed a great many cases respond to thorough cleaning up of chronic infection; not just the teeth and tonsils, but the whole system, and especially the gastro-intestinal tract. I think this is a method of treatment which will succeed in many cases and prevent recurrences. It does take a long time; it takes more persistence and more effort on the part of the physician to clear up these cases, but I do feel that a great many of them are toxic, but sanitarium treatment and attention to the physical condition, which is generally evident on thorough search, will produce results.

Dr. C. Fred Becker (Camden): I don't know whether I understand Dr. Cotton correctly, whether he means that focal infection is the sole cause of all these cases or not, but I do agree that you can clear up a certain number of cases that are toxic in origin, and I also feel that there are a great many cases that show no toxic origin or area of focal infection. As I stated in my paper, I have examined at least 10,000, and probably 15,000, ex-service men who were neurotics, classified by the government under the psychoneuroses. All of those men certainly did not develop focal infection the instant they came under shell fire. The moment a man shouldered a gun and arrived at the front and sought self preservation under one of the psychoneuroses, as the way out of a difficulty, is not, in my estimation, due to focal infection. He comes back to civil life and we find him a neurotic. Certainly, we clear up the focal infection, if he has it, but in many of those I have examined we have been unable to find any focal infection. I really believe there is an unstable make-up in the man to begin with. He might have been holding his own in life before he went to war, because he wasn't thrown against the difficulties that he encountered when he arrived at the front, and then his nervous system snapped. There certainly must have been an inherent factor back of that, to make the man break. A difference, biologic or otherwise, just as we all differ in characteristics and personalities.

Dr. H. A. Schachter (Newark): With regard to Freudian treatment of psychoses and psychoneuroses, Dr. Beck referred to a great many ex-service men whom he had seen and whom he felt had an inherent defect, mental or physical, which predisposed to neurosis. Dr. Cotton reminds us of the splendid work that he has done in the past 10 years in the treatment of organic defects which seem to have been exciting etiologic factors, or at any rate the correction of which seems to relieve the mental condition. I think that there is a happy medium. I don't believe that Professor Freud is entirely wrong, and I don't think Dr. Hicks believes so, either, "away down in his heart", to use his own phrase. I don't believe Dr. Cotton is entirely wrong. I am quite sure—and I. too, had the privilege of examining several thousand ex-service men when attached to the U. S. Public Health Service and the U. S. Veterans Bureau, men who were overseas and suffered from the severe psychic trauma of having a T. N. T. shell explode within a few feet of their heads —you and I, if we had been subjected to some of their experiences overseas, would have in a measure, depending upon our individual ability to react normally to the situation, become upset and become abnormal mentally.

I believe that I have seen, and I am sure the

neuropsychiatrists present have seen traumatic dementia præcox, or schizophrenia. I mean by that dementia præcox precipitated by severe psychic trauma. I know that I have seen a number of cases treated by Dr. Cotton among ex-service men, who, after having had their supposed foci of infection extirpated, improved or became well. Some left sanatoriums or hospitals and went back to civil life. Some became socially adjusted and are now rehabilitated, earning a livelihood for their families and carrying on normally. One can't discredit or refute what one sees. These are actual instances of cases that we have observed.

Dr. Cotton himself, I am sure, doesn't have an opportunity to follow up all of his cases; I know that, because I know a number of ex-service men whom he never saw again and whom we did see at the Veterans' Bureau at Newark applying for further compensation, who weren't entitled to further compensation for the simple reason that they were well and earning a livlihood. Then, I think of so many individuals who didn't have any harrowing overseas experiences who were found to be abnormal mentally when examined by the Veterans' Bureau physicians and other neuropsychiatrists in the country, and there is no question in my mind that a great many of these men were normal when taken into service. I know of a number of instances where we could definitely trace through the entire service records of certain individuals and knew precisely that there was no traumatic or other similar factor that would be likely to precipitate a psychosis or a psychoneurosis, and yet they had become abnormal mentally; some of them so abnormal that they are now at Overbrook or Greystone Park or mental institutions elsewhere in the country, and will likely be there as long as they live.

I should like to ask Dr. Hicks what he has to offer in those cases of young men and young women who too often eventually commit suicide, who come to us complaining of headaches and complaining of various manifestations, backaches and what not, who tell us they have "pins and needles" sensations, who tell us they are afraid to cross the street, they are afraid to climb 3 or 4 stories and look out of a window? Why do they feel that way? What is the cure?

Every now and then we read of a suicide and then we look further into the news item and read that the individual had been treated at a sanatorium or elsewhere. Of course, in a great many of these cases, these individuals fall into the hands of quacks. I feel that it behooves every physician to learn as much as possible about the treatment of neuroses. Thereby we may prevent some of these unfortunate individuals from becoming psychotic, for there is undoubtedly a definite link between the neurotic and the psychotic individual. There is undoubtedly a definite organic basis for most, if not all, of these conditions if we can only learn to understand it and find it.

Dr. William H. Hicks (Newark): The discussion of this symposium has, I hope, served to bring out the great limitation of our knowledge of these diseases. You see we have no uniform opinion as to etiology, pathology, and sometimes, symptoms, and certainly not as to treatment.

The neuropsychiatric world is in about the same position that the surgeon was 50 years ago. Before Pasteur and Lister appeared, the surgeon's patient would become infected, develop fever, suppuration would set in and the wise men would speculate as to the cause and how it should be combated; and they all differed and were all wrong. Why? Because they had no real, tangible, scientific knowledge of the reason. Pasteur appeared and showed that it was bacteria. Lister appeared and showed how to prevent or kill the bacteria. Today surgery is upon a solid, scientific basis. There is no dispute about the principles of surgery. This has made it easy, for anyone can learn surgery if he has skill and some brains. It can be taught, any surgeon can repeat the technic of an operation. Of course, it takes a great man to make a great surgeon today, for he must know when as well as how to operate. A surgeon can foretell what the results of an operation will be; and 9 times out of 10 he will find out why if he fails to realize the results prophesied. Some one is usually responsible, nurse, intern, assistant or even the surgeon himself.

The neuropsychiatrist has no settled, scientific guiding principle; for psychology is to the mind what histology is to the body. Would any of us know anything about pathology if we did not know histology? We cannot understand psychiatry until we know psychology and the field of scientific psychology is at present quite limited.

There is a vast amount of accumulated material on the subject of psychology, mostly a conglomerate mass of undigested research work and individual speculative interpretations of psychic phenomena with few uniform guiding principles that command general recognition and agreement. Bently claims that over 50,000 separate contributions on the subject have been published in the last 25 years! This makes modern psychology almost as confusing as the casuistry of the schoolmen of the middle ages.

When we have a more uniform psychology, when we can agree upon definite scientific principles underlying the laws of mental operation, just as surgeons agree upon the principles of asepsis or antisepsis, then, and not till then, can we hope to make much headway in psychiatry. At present it requires a person endowed with a special mental equipment to separate fact from fiction; and in the domain of psychology a little learning is truly dangerous. Of course, anatomic neurology rests upon well known scientific principles upon which there is general agreement.

I think Dr. Cotton misunderstood my paper. I said that a focal lesion is not always the cause of a neurosis or a psychosis. I did not say that it never is the cause, but did state specifically that the etiologic factors enumerated by Dr. Becker may be causes.

Forty years ago Kraepelin, the great German psychiatrist, made the original classification referred to in today's symposium. He placed in separate groups dementia præcox, manic-depressive insanity and paranoia, and claimed that 95% of manic-depressive cases recovered from any given or recurrent attack. In his day there was no surgical treatment for these mental diseases, such as removal of tonsils or teeth. The patients were merely housed, fed and kept from committing suicide until the disease ran its course.

As to dementia præcox, Kraepelin admitted that only about 13% recovered from a given attack. Most of the later psychiatrists maintain that not even that number recover from dementia præcox, because the disease has all the earmarks of an internal disintegrating toxic condition not due to some little accidental infection but to some profound disturbance of the whole organism, biogenetic, autotoxic or degenerative.

There is no doubt that the present methods of treatment for the mind-diseased are far better than ever before in the history of the world.

There are great institutions like the hospitals operated by Dr. Cotton and Dr. Curry and the heads of these big institutions are doing wonderful work in many ways. The patients are better housed, better clothed, better fed, better nursed, receive better medical treatment; are given employment, amusements, exercise and outdoor life. All these things help to increase the percentage of recovery.

What do we know about the matter? Really, scientifically, we know that in the brain, that wondrous world with one inhabitant, "there are recesses dim and dark, treacherous sands and dangerous shores where seeming sirens tempt and fade; springs that rise in unknown lands from hidden springs; strange seas with ebb and flow of tides; remorseless billows, urged by storms of flame; obscure and phantom realms, but half revealed; profound and awful depths, hidden by mist of dreams; jungles, where passion's tigers crouch, and skies of cloud and blue, where fancies fly with painted wings to dazzle and mislead"; and the lone wanderer in this pictured world is urged by old desires and ancient hates and pushed by hands that long ago were dust; until reason abdicates its throne and the storm tossed soul is lost in a wilderness of chaos; or, striking out across green fields, through blooming meadows, beside cooling springs and sparkling cascades, the solitary pilgrim wends his way to the delectable mountains where mental and emotional law and order reign and peace and happiness are found.

May the God of science send us men who will throw wide open the doors of this marvelous brain world and give us a broader knowledge and understanding of its subtle mysteries—a knowledge and understanding that will confuse and confound the charlatan who waxes fat and grows rich preying upon the mentally ill.

WHAT IS THE MATTER WITH THE TONSIL OPERATION?

Frederick F. C. Demarest, M.D.,
Passaic, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

There are 2 indications for the enucleation of tonsils—the relief of mechanical obstruction and eradication of existing localized disease. Wholesale and indiscriminate removal of tonsils is all wrong. The operation for removal of tonsils should be considered a major surgical proceeding and should preferably be done in a hospital. This operation, when performed at the hands of any and every one without regard to any training and special ability in this line of work, often results in delayed bleeding from laceration of the soft tissues of the pharynx, which lacerations cause later deformity and loss of function in the throat and pharynx, regurgitation of fluids through the nostrils, adhesions of pillars of the pharynx, obstruction to the mouths of the eustachian tubes and consequent damage to the middle ear. These conditions, avoidable by the skilled surgeon, are a discredit to the profession.

That the above condition exists is a matter of common observation and is evidenced in one respect by the frequent publication in the journals of cuts describing new instruments for the control of postoperative hemorrhage. We have all seen patients whose tonsils have been removed with resulting marked deformity in the throat, or who have been promised that removal of their tonsils will cure about all the ills the human body is heir to. Years ago, when we did not know what was the matter with a patient, we were advised to give him iodide of potash. At the present time, when we are unable to discover the cause of a patient's trouble, it seems as though this advice had been displaced by "take his tonsils out". When operating with a definite object in view, if things go wrong, we can, perhaps, lay the blame of our failure to benefit the patient on the so-called condition of status lymphaticus.

The successful non-mutilating operation for removal of tonsils requires practically the use of no cutting instrument whatsoever. At the present time the styles for this operation are about as numerous as the operators. We have the snare operation; the grasping operation, by which the tonsil is torn from its fossa; enucleation of the tonsil by use of the finger nail; and we still have the so-called operation of tonsillotomy. Successful enucleation of the tonsil calls for a competent diagnostician, a competent operator, an intelligent anesthetist, a suitable anesthetic, and suitable instruments.

There has lately been an examination in one of our larger hospitals of the tonsils removed from 1000 school children; which showed that 90% of these tonsils were not diseased. As a general proposition, tonsil removal is for the relief of obstruction or disease and the ultimate benefit of the patient with the least possible shock and damage. This brings us to the

question of the anesthetic. General anesthesia should never be administered to children for this operation, in an upright or semi-upright position. The pharynx should always be on a level lower than that of the thorax. Ether, which in this country is the anesthetic of choice, is very disturbing to children and causes congestion of all the capilliary blood-vessels of the throat, lungs, heart and kidneys; it stimulates the circulation, causing oozing and delayed hemorrhage; and leaves the patient with inflamed kidneys and disturbed digestion. Add to this the use of a suction apparatus during the operation, with the patient in a semi-upright position, and we would seem to have sufficient cause for aspiration pneumonia and lung abcesses.

While ether is supposed to be so fool-proof as to require little skill in administration, it requires a considerable time to produce proper relaxation, and if it is necessary to interrupt its administration it requires both time and quantity to again secure the necessary relaxation. Chloroform is not fool-proof, but it is the anesthetic in use in the tropics and has been almost universally used abroad. The Hyderabad Commission reported, some years ago, in favor of chloroform as the anesthetic of choice. Chloroform is perfectly safe in short operations on children if it be recognized that the first untoward effect of the administration of too much chloroform is not paralysis of the heart but is paralysis of the ciliary muscles, causing secondary dilatation of the pupil, at which time if the chloroform is not stopped there will follow paralysis of the respiratory center, which in turn is followed by paralysis of the heart—the universal cause of all deaths.

Chloroform, unlike ether, is easy of administration; it can be stopped at will; and when resumed a few drops will at once replace the patient in a satisfactory condition of relaxation. It does not congest the capillary blood vessels and does not clog the throat with mucus nor obstruct its lumen by edema.

Some years ago I reported 3000 children operated on successfully for the removal of tonsils and adenoids under chloroform anesthesia. During my whole practice I have never lost a case, never had an aspiration pneumonia, nor lung abscess, nor any serious hemorrhage. I operate for removal of tonsils in adults under local anesthesia and use a 1% solution of cocain with adrenalin for injecting about the tonsils. I have used this solution for a number of years and never had even a dilated pupil, much less any symptoms of cocain poisoning. Cocain is not fool-proof. I am as careful in the use of cocain injections and chloroform anesthesia today as I was when I first started to use them. Given a competent diagnosis, suitable instruments, an intelligent anesthetist, and a suitable anesthetic, it is possible today to use general anesthesia in children and local anesthesia in adults to enucleate tonsils without any interference with the functions of the throat or pharynx or secondary damage to the general functions of the whole body.

A METHOD FOR CONTROL OF HEMORRHAGE FOLLOWING TONSILLECTOMY

Harry R. North, M.D.,
Trenton, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

A confidential questionnaire sent by H. W. Loeb to members of our profession in the United States elicited a record of 62 deaths from hemorrhage; 19 from general sepsis; 7 from meningitis; 20 from undetermined causes; making a total of 108 deaths. This, of course, represents merely a percentage; it is evident, however, that the tonsil operation is not without its dangers and that it rightly deserves a place as a *major* surgical procedure.

The danger from hemorrhage is perhaps the greatest "bugbear" of the operation. Is this a real or an imaginary obstacle? It is both. It is real insofar as severe hemorrhage does occasionally occur in tonsil operations. It is imaginary insofar as the reputed frequency of its occurrence and the degree of danger attending it.

The above is quoted from Ballenger and

I feel is put rather mildly. I believe that severe hemorrhage is likely to occur more often than "occasionally". The control of hemorrhage must of necessity assume considerable importance inasmuch as the operation of tonsillectomy is, possibly, more frequently performed than any other surgical procedure. Surgeons early learned that hemorrhage was a real danger, but the methods of control were so unreliable that most men satisfied themselves with an incomplete operation.

It has been said that the danger of hemorrhage following tonsillotomy is much more to be feared than that following tonsillectomy. This may be true if the tonsillectomy is done exactly according to rule, but my own experience does not entirely coincide with any hard and fast rule or argument. The older method of control was usually some form of compression and, while in a degree fairly adequate, left much to be desired insofar as end-results were concerned. The older methods of operation seemed to be devised, and quite naturally so, to fit the existing difficulties of technic and hemorrhage. This is typified in the tonsillotome and, in fact, any guillotine operation. The control of hemorrhage should begin before the patient enters the operation room. It is to be assumed that your patient is not hemophilic, that the operation is to be done by a careful and competent throat surgeon and not by a general practitioner of medicine or surgery, that the operation is to be done in a hospital and that the patient will remain there for at least 24 hours after the operation.

The clotting time should be known and measures used to correct any irregularities. The general physical condition should be as near par as possible.

I am presuming, for the sake of argument, that we are doing the dissection method which is ideal for immediate hemorrhage control. I am advancing nothing new, merely emphasizing the importance of the application of general surgical principles of hemorrhage control to our throat surgery; in other words, the ligation of individual bleeding points at the time of operation. This procedure has always been supposed to be difficult but such is not the case and especially is this not so if one makes it a routine practice.

Some years ago, Dr. J. Leslie Davis devised a set of instruments for the control of hemorrhage following tonsillectomy. This set consisted of a retractor, hemostat, needle holder and needles. To my mind this was a distinct advance and I used this set quite satisfactorily for a time. The needle holder and separate needles gave considerable trouble and I substituted a long handled needle very much on the order of the S. MacCuen Smith tonsil needle, differing however in having the closed eye. The set used today consists of the original retractor, the long handled needle and a Tyding tenaculum. The Tyding tenaculum, as purchased, has curved teeth. It is necessary to have these teeth retempered and straightened. This is of the utmost importance. The tenaculum serves a number of purposes: first, to catch the bleeding point and at the same time, occasionally, to depress the tongue; and, most important of all, to pick the suture from the needles and draw it through and this is where the straight teeth come in to great advantage.

The technic or method as used today by myself and my associates might be called the suture-ligature method of control. Immediately after the tonsil is removed a gauze sponge is placed in the sinus tonsillaris, the anterior pillar being retracted, and the bleeding points are located. Each bleeding vessel is then grasped by the Tyding tenaculum and a suture passed under the bleeding point (the needle being threaded with No. 0 catgut). As soon as the needle has emerged, the tenaculum is released, made to grasp the catgut, and pull it through, so it can be tied. This procedure is repeated until a dry field is secured.

There is no question but that this method will control the hemorrhage but it has other advantages; it gives one the opportunity of removing the lymphoid tissue at the base of the sinus tonsillaris—for with this method such tissue may be removed with impunity. The sinus tonsillaris is left exposed—infection is less likely to occur and worry ceases. This entire procedure is the matter of a very few minutes, sometimes seconds. Should there subsequently be a delayed hemorrhage,

the sinus is easily cleared of clot and an additional suture or two passed. This is very rarely required.

The very fact that we see almost no secondary hemorrhage is proof of freedom from infection. This suture ligature method makes the dissection operation safe and is especially useful in local work. The pulling together of the pillars by sutures is still used but at best is not to be desired. It has, however, a place, be that place ever so small. Should this procedure be deemed necessary and should gauze be placed in the sinus before pulling together of the pillars, I would suggest saturation of the gauze with Compound Tincture of Benzoin, as this seems to prevent infection.

After the removal of adenoids the postnasal space is thoroughly irrigated with a cold saturated solution of boric acid. Later, if hemorrhage continues, a postnasal pack is used, the gauze being saturated with Tincture Benzoin Compound.

For those patients, especially adults, whose clotting time is very high, say 10 minutes with the capillary tube, we suggest an injection of citrated blood. This usually works like magic and will reduce a 10 minute clotting time to 3½ minutes within a few hours. In children, it has been our practice to use calcium, especially when the clotting time is not very much disturbed. Para-Thor-Mone, I am not familiar with from personal experience but I am reliably informed is very efficient. There are many preparations to be used but in all the aim is to establish a normal clotting and bleeding time—to prepare the patient to the best of our ability for a safe operation.

ENDOTHERMIC TONSILLECTOMY

Jack Blumberg, M.D.,
Elizabeth, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

Although the operation of tonsillectomy as now performed is generally a satisfactory procedure, 2 complications may present themselves which require careful attention; these are hemorrhage and lung abscess, either singly or together, for where hemorrhage is extensive or prolonged in tonsillectomy the danger of lung abscess increases in almost direct proportion. Fetterolf and Fox have proved that the majority of post-tonsillectomy lung abscesses are conveyed by the hematogenous or lymphatic routes; undoubtedly some are caused by aspiration of infected or irritating material. Myerson recently reported on 200 tonsillectomized patients whom he bronchoscoped immediately after operation. In over 150 he found blood in the bronchial tree. In Wessler's series of 100 consecutive cases of lung abscess, 21 followed tonsillectomy. It seems, then, that anything that will control bleeding and prevent infection entering the blood and lymphatic channels will be a material aid to the throat surgeon. Endothermy seemingly does this.

By endothermy is meant the passage of a high frequency current through the tissues, the resistance in the tissues generating heat. Properly controlled, this heat ranges from simple warmth, through coagulation, to cutting. In tonsillectomy, except on rare occasions later considered, the cutting current is employed. This consists essentially of an undamped or a sustained oscillating current, the undamped nature of which is secured by the aid of a specially constructed spark gap coupled to appropriate condensers and inductances so that an extremely high spark frequency is obtained. The spark frequency determines the frequency of the undamped current.

Through the courtesy of a manufacturer of electric surgical instruments, there has been perfected the wherewithal of applying endothermy to suit the usual technic of every operator. For those preferring the Sluder or Beck-Schenck routine, the Herman tonsillotome answers the purpose; the tonsil being engaged the same way as if the cold instrument were being used and the electric current finishing the operation by separating the tonsil from its attachment. For the surgeon accustomed to dissection and snare, the Ward dissector will do everything that the cold dissector does

and the electrified snare finishes the procedure.

When used in tonsillectomy, endothermy leaves a fossa covered by a fine white-seared surface in which, occasionally, punctate hemorrhagic spots are seen. Correctly done this layer is so thin that if edges are brought into apposition healing is by first intention. If too great pressure is kept on the snare, in which case the snare has done the cutting and not the electric current, the fossa will be bloody. It must always be remembered that with the electric circuit closed we are using a cutting modality and anything that the dissector or snare wire touches will be cut through. Microscopically, the removed tonsil shows a homogeneous seared base for a depth of 2 to 3 mm. with a sealing off of the lymphatics and small blood-vessels.

Some care must be exercised as to the anesthetic used. In adults local anesthesia works very nicely. For children, where a general anesthetic is used the choice should be ether, with a discontinuance of the anesthetic at the instant of turning on the current to do the cutting. Ethylene is contraindicated because of its high inflammability.

Dr. George Seymour and myself have done 110 cases with endothermy; 30 patients were over 25 years old; 20 were between 15 and 25; and 70 were under 15 years of age. Thirty cases of the entire series were of the type wherein we considered necessary dissection with the Ward dissector. The remaining number were taken care of by the Herman tonsillotome or the electric snare alone. In no case have we experienced postoperative sloughing or hemorrhage. Where for the sake of comparison one tonsil was removed by the electric method and the other by the cold instrument we have found that usually the side done electrically healed more quickly and with less pain. One case with a bleeding time of 11 minutes was done without misadventure. Two of the cases in which electric dissection was done, both patients over the age of 25 and with histories of repeated quinsies, had severe pain for 6 days postoperative, but the fossas healed perfectly in 10 days.

Where bleeding from a large artery or vein is encountered the cutting current will not suffice. In these instances the vessel must be closed by ligature or grasped with a hemostat, the cutting current throttled down to the coagulating point, and the hemostat touched with the positive pole to cause coagulation in and around the grasped vessel.

Endothermy is not offered as an easy foolproof method for performing a surgical operation of major importance. Although technical knowledge of electricity is unnecessary, ordinary surgical judgment is essential. Where the cutting current is required the coagulating point will not suffice and results attributable to the operator must not be held against the method.

I feel that a new aid has been added to the armamentarium of the surgeon differing from the technic of the cold instrument but resting on the knowledge and experience of the old surgical methods.

DISCUSSION

Dr. Harry R. North (Trenton): I enjoyed both Dr. Demarest's and Dr. Blumberg's paper. Regarding the first, I believe he made the assertion that no cutting operation at all was necessary to remove tonsils. In that I beg to disagree somewhat, as I believe the fibrous tonsil, the quinsy tonsil, cannot be taken out properly without a cutting operation. He also stated, I believe, that in some one thousand school children there was a considerable number of cases in which the tonsils had been taken out when there was no disease present. That is not unlikely. They may have been hypertrophied tonsils and then I think it would have been justifiable to remove them.

The doctor seems to be very much in favor of chloroform and probably is better equipped to use it than I am. Personally, I have never had very much trouble with ether, and I make it a practice to never put my patients entirely under. I have schooled myself to work while the patient is not altogether relaxed, and if we have any fear of too much mucus, an injection, in a child, of 3/100 gr. atropin usually controls the situation.

As to the use of cocain in local work, I am positively against it. I am against it because there have been some deaths from cocain; and why use cocain when we can get the same anesthetic effect from procain, from which there is practically no danger.

As to Dr. Blumberg's paper, I confess that I am a little bit at sea. I am willing to learn, but it is still something new to me. I believe he did say, however, that the principal advantage of this operation is that it gets away from lung abscess and hemorrhage. In the last 15 years we have, I think, done an average of 1200 tonsillectomies a year. I have never seen a lung abscess and we have never lost a patient from hemorrhage. The reason that I use the dissection method is because the fossa is left wide open and one can easily depress the tongue and examine the base of the fossa; and I am sure that every man present has at sometime or other been very much chagrined

weeks after his operation to have his patient report at his office and find a large amount of what appeared to be tonsil tissue in the base of the fossa. I believe that many men avoid that area because the lower part of the fossa is distinctly a bad bleeding section.

The method that I described today in my paper does control hemorrhage, there is no question about it, and you can go down into the fossa just as far as you like and take every bit of tissue out, knowing to a certainty that a ligature or two will control any hemorrhage.

Dr. James A. Fisher (Asbury Park): I was very glad to hear Dr. Demarest and Dr. North emphasize anesthesia. I think that the anesthesia we have been in the habit of receiving for our tonsil cases has been one of our greatest dangers. Down in our section of the state we have tried to elevate anesthesia to the point of being a specialty of its own. We have a very competent man who has been devoting his time exclusively to anesthesia, and I have worked, I should say, in 98% of my tonsil cases, with this man. It is a matter largely of team-work, a proper knowledge of anesthetics, of your danger signs, and of the operator's technic, that plays such an important part.

Like Dr. North, we have not lost a case from hemorrhage and we have not had a lung abscess occur on our service. However, I know of a case of lung abscess during the past year in our hospital, but that also I feel was probably due to the method of anesthesia and the method of operating. I think that the anesthetist is just as important a member of our hospital staff as our chief surgeon, and should be paid commensurate with his ability. When we recognize that fact, we will be going a long way toward safety in operations. A $5 anesthetic is a thing of the past. If an anesthetist is an expert, he is entitled to a good fee, the same as we are entitled to a good fee for a good operation.

I just want to mention something about calcium in the preparation of our patients. Dr. Roy Barlow, formerly of the Mayo Clinic, now connected with the Madison Clinic at Madison, Wisconsin, has worked a great deal on calcium retention and the matter of vitamins. He told me at the "Triological" meeting down at Washington that calcium is not retained the least bit, if given orally; unless it is administered after a course of cod-liver oil, in order to get an acid medium in the gastro-intestinal tract, due to the splitting of the fatty acids; then, your calcium will be retained and you can lower the clotting time. So, about 4 or 5 days on cod-liver oil, together with the calcium, enables the patient to retain the calcium and his clotting time will be materially decreased.

When I first started doing tonsil operations I thought that speed was a great thing. It didn't take me long to find out, however, that speed was not *the* thing and that *care* was the great thing to be desired.

We use no sponges; we do not enter the tonsil fossa for sponging purposes after an operation in any way. We look for our bleeding points, as Dr. North said. If we have a bleeding point we pick up that point but do not rely on pressure ever, and we never use a sponge.

May I digress here just to mention the work that we are doing on the thymus gland investigation. Eight years ago I lost a legitimate case of status lymphaticus, a death immediately after the patient was placed in bed, and from no apparent cause. We were fortunate enough to obtain an autopsy. I cannot recall the weight of the thymus but it was a tremendous thymus gland. In that same clinic morning we had 2 other cases for operation. We had already operated on one child, upon whom I had previously performed a mastoid operation. It got along all right. We did not operate on the third member of the family that morning but took radiographs and found a very large thymus gland, making 2 out of 3 of the children in one family with large thymus glands. Since that time I have been developing work on thymus gland investigation by our pediatrists and by our X-ray Department, and although we are not doing a tremendous number of tonsil cases down our way, in connection with what we are doing I think the work that we will be able to tell you about a little later on, within a year or so, may be of some help.

Dr. Norton L. Wilson (Elizabeth): I have listened with a good deal of interest to what Dr. Fisher has said. He referred especially to the importance of having a proper anesthesia. I think we have all recognized that years ago. I should like to ask members of this section how many deaths they have had from the anesthesia? I have been practicing 40 years and have never had a death; I have done thousands of adenoid and tonsil operations and I have never had a death from an anesthetic, but I do know of some deaths, just as Dr. Fisher speaks of deaths from status lymphaticus. How would he have prevented that? He might have had the best anesthetist in the world and yet those patients would have died just the same, unless he had an x-ray and knew beforehand the size of the thymus gland. Even then, I don't know what he would have done. Perhaps he knows and I hope he will tell us.

Regarding the anesthetic, Dr. Demarest has talked for years about administering chloroform, and chloroform only. He has satisfied himself that is the thing to do. He hasn't, however, satisfied me. I don't propose to change to chloroform, because I have had just as good results as he reports. Why should I change? The method which I use for removing tonsils satisfies me and satisfies my patients. Why should I change to the use of his instrument or to some other instrument? I do just as good an operation as he does, in my opinion and in the opinion of my patients. Why should I change?

Regarding the clotting time, Dr. Fisher says you must give cod-liver oil before you administer calcium. A few years ago Dr. Corwin brought out the theory that the administration of calcium would reduce clotting time. I have great confidence in Dr. Corwin. Whatever he says, I investigate, and after he brought that out I started an investigation for myself, and I started it on myself. The normal blood clotting time with the instrument I was using was 7½ minutes. I could bring my clotting time down every time, by the administration of calcium chloride, to 1 minute, but it did not stop hemorrhage. We got into the habit of administering calcium chloride to our patients before operating upon them, but they bled just the same and I have abandoned its use.

That brings up another question, namely, how many cases have we seen of serious bleeding from tonsil operations? I was born in the time of tonsillotomy and I never have seen a death, but in a practice of 40 years I have seen 3 serious bleeding cases, and only 3; that is, in my own practice. So, after all, it can't be such a serious matter, and particularly is this true in the young;

but we have to be on our guard and prepared to ligate any bleeding vessels.

I have seen 2 lung abscesses in my own practice. Whether the infection was by way of the windpipe or through the lymphatics or the bloodstream, I don't know. They both recovered, however, but they gave me a good deal of concern at the time.

Dr. North spoke of the inferior pole, and that is very important. I have only recently had to take out one of those inferior pole masses from a patient on whom I operated 3 years ago, but where I had failed to get it all out in the first instance.

Dr. Harry V. Hubbard (Plainfield): In preparation of the patient, we have in our hospital a standing rule to take blood coagulation time. I suppose that is quite common. However, after having watched this procedure for quite a number of years I have said to my friends that coagulation under 10 or 12 minutes had nothing to do whatsoever with the post-operative tonsil hemorrhage; coagulation under 9 or 10 minutes means nothing. Therefore, we only do it for the sake of possibly catching a real bleeder.

As far as the anesthetic is concerned, practically all our operations, except a few selected ones, are done under ether, and I believe that is the safer method, including cocain and all other drugs. I believe it is the safer method because so far, after about 22 years experence, I have not seen a death.

It makes no difference what kind of an instrument you use, provided you are familiar with it and can do a good operation. Personally, I have used dissection; I have used the Demarest instrument; I watched Dr. Demarest do this work when I was young and used to be over at the Post-Graduate Hospital. Then I took up the Braun modification, which of course is the snare with the Sluder instrument, and I believe that in my hands is the best method. I can handle it best. But, as I say, it is only a matter of becoming accustomed to the particular kind of apparatus with which you can do the best job.

As to hemorrhage, we all see hemorrhages. All men who do tonsil operations, I believe, see hemorrhages at some time. I have been as long as 4 years without seeing what I would call a hemorrhage, and then see 4 or 5 within a month. For the last 5 years I have not administered a second anesthetic to control hemorrhage. I usually take a wineglass and fill it about 1/3 full of tannic acid, another 1/3 full of gallic acid, and then add a few drops of adrenalin, just enough, when it is stirred up, to make a paste. Then clear the fossa of clots and apply this preparation and hold in place from 5-10 minutes. Since I have used this method I have never seen a bleeding that has not been easily controlled. If you do not get the paste on the bleeding point, you may have to apply the second sponge to be effective.

As to lung abscesses, I have not seen any. I saw one lung abscess after doing a radical antrum. She recovered. I think the lung abscess question is largely one of technic, being sure that you lose no blood down the throat, or practically none, by using the suction apparatus.

As to not getting all of the tonsil, or so-called return of tonsil, I believe that there is a return of tissue which simulates tonsil and is developed or stimulated by the manipulation. For instance, if you use a hemostat you traumatize the capsule or the tonsil fossa and that stimulates granulation, and you often get granulating tissue established in the fossa following a tonsil operation, and the next fellow who sees the patient says that you didn't get all of the tonsil. He says that because he has not examined it carefully and does not know just what it is. Great care should be taken, however, not to leave any pieces of tonsil tissue.

I want to say, in justice to Dr. Blumberg, that I witnessed 2 or 3 operations that he did at Elizabeth the other day and I was very much impressed with this method. In selected cases, I think it seems to be a very good thing. There is one point about it that I should want to be perfectly sure of, and that is the possible danger of a spark and how weak a vapor of ether would be inflammable. Dr. Blumberg turns off the ether apparatus, or the application of his ether, and immediately turns on the electric current, and if that is enough without danger, well and good. If it is dangerous, it is very dangerous. The instrument of course is very new and that will all be worked out with safety, and I believe it has a place in our work.

Dr. J. J. Pagliughi (Union City): I think the method of tonsillectomy should be left up to the individual man, and, as Dr. Wilson said, if a man has been using one method for 20 years efficiently and then goes to another, it stands to reason that his work will not be as well done.

My own experience with the coagulation method of removing tonsils has been bad. Of course, I have never seen endothermy used or the so-called radio-knife, but in coagulation of the tonsil you will get a severe reaction if too much is done at one time. I have also seen secondary bleeding follow coagulation, and it was quite severe. At about the fifth to the sixth day some of the white fibrous mass will fall off. Sometimes it gets hard, may open up a nodule and cause bleeding.

The main thing, I believe, in doing a tonsillectomy is to clean the fossa well by removing every piece of tonsil tissue, because sometimes there may be a bleeding point or an artery immediately under this piece of tissue left in the fossa and you will get a continuous ooze from that, and very often a secondary hemorrhage.

As far as sutures, that is the sewing of bleeding points as advocated by Dr. Wells and others, I do not believe it to be wise, especially if the tonsillectomy is done well, and there is no bleeding. I think you may stir up some trouble. Suture bleeding points only when you have actual bleeding.

As to suturing the pillars alone, I have found that to be successful at times but bad at others because if you have a secondary hemorrhage with a large vessel, as sometimes may happen, and there is nothing to hold a clot, you will get a severe hemorrhage and you will have to remove the sutures and clean the fossa.

Clotting time alone and this calcium theory I think have fallen somewhat into disrepute. At a meeting of the laryngologists in New York there was quite a discussion on the fact that some patients with low clotting time had severe secondary hemorrhage and others with a high clotting time had none at all. Today, I believe it is the consensus of opinion not to pay much attention to it.

Another point is that a patient should not be operated on who has a coryza or running nose; give that patient sufficient time to recover before an anesthetic is used. I believe this is overlooked too many times.

Another point is that no matter how well a tonsil case may be done, there will be times when

you will get a secondary hyperplasia of lymphoid tissue, and this is a process which is provided for by nature. If you consider the fact that the throat consists of a lymphoid ring, and that when you remove a piece from one place you may get a hyperplasia in another; you will sometimes get a regeneration of lymphoid tissue at the site.

Dr. H. L. Rogers (Riverton): There is one danger that I had the misfortune to run into. I am not a nose and throat man but of course I have a great many of my patients operated upon. We have heard of hemorrhage and lung abscess. I have seen both. We have also heard of status lymphaticus. Those are the 3 dangers.

A child I sent into Jefferson Hospital, Philadelphia, was operated on at 8 a. m.. There was just a moderate amount of bleeding. This child had been fully prepared in every way and the coagulation time was all right. At 4 p. m. that child very suddenly died, for no reason at all that we could see. The child was on Dr. Fielding O. Lewis' service and we persuaded the parents to have an autopsy. The thymus was perfectly all right; there was no blood in the stomach that showed any massive hemorrhage, but there was a complete collapse of the left lung. So I offer massive collapse of the lung as one of the dangers following tonsil operations.

Dr. Theodore W. Corwin (Newark): I have been very much interested in this discussion. My name has been referred to by Dr. Wilson in relation to hemorrhage and the fact that you can control some bleeders by calcium chloride. You may remember that a good many years ago Dr. Wright, of England, brought out the use of calcium chloride and advocated it for a good many years. A mere allusion in abstract in one of our medical journals called my attention to the matter. I have had the habit of giving calcium chloride for a number of days to all my operative cases and I have no doubt that there has been a very distinct improvement in my results in regard to the amount of blood flow, I have since continued to use it. I do not believe calcium chloride will tie a blood-vessel of any considerable size. I believe calcium chloride affects the capillary bleeding only, but if you have a larger bleeding, sufficient to constitute what we call a surgical hemorrhage, you must use something more effective than calcium chloride. I believe that calcium chloride does aid all the other forces which tend to check hemorrhages. I believe that the ultimate reason why blood flow stops is that a clot forms in the bleeding vessel, and that whatever you do to promote formation of this clot accomplishes the result. It isn't going to tie the vessel, however, and you have to check the flow from the vessel until a clot forms, and that clot is the ultimate security. You will find that if you have your fingers in the mouth or any other operative field, after giving a full dose of calcium chloride, the blood on your fingers is so sticky that you are uncomfortable in using those fingers. To say that calcium chloride has no effect is a mistake, in my opinion. I said that I used to give calcium chloride for 3 or 4 days before this operation. I have come to feel that is not necessary, unless there be some other reasons for giving it. I find that if you give a large dose of calcium chloride so that there is a large amount of it circulating in the blood during the operation, you will aid in restraining hemorrhage. I have read a good deal of the controversy which has been current, regarding calcium chloride and I feel that calcium chloride disappears very rapidly from the blood. My present method of using calcium chloride in order to restrain hemorrhage in operations on the nose and throat is to give a single good-sized dose. I am not afraid of a good-sized dose. I give them 50 gr. calcium chloride within an hour of beginning my operation. It is very quickly absorbed. That is my method of using it. In the case of a child, I give a proportionate dose. I would not hesitate to give him 20-odd grains, but I give it on the morning that the operation is to be done.

If a man in taking the tonsil out doesn't cut out anything but the tonsil, he will very rarely have hemorrhage. It is because people get away from the tonsil that they have hemorrhage. The arterial supply of blood to the tonsils consists of several large branches or several large vessels well recognized, and these divide, and, close to the tonsils divide again, until the blood enters the tonsil by a lot of *very minute vessels* not large enough to create a hemorrhage, so-called; small enough to contract perhaps even from the manipulation, but at all events contract enough to stop bleeding right away. The safeguard against hemorrhage is to keep close to the tonsil.

My practice is not to use an open knife. I use scissors altogether, and I use scissors which are not too sharp. I don't separate the tonsils by using the cutting edge of the scissors. I incise the mucous membrane with the scissors around all the upper part of the tonsil, the front and the back making a circumcision. Then, after that, it is a process of enucleation, but there are some fibrous bands which connect with the bed of the tonsil pocket, and you have to keep close to the tonsil and incise those bands or else they will carry you away from the tonsil if you follow them. You have to cut the bands at their attachment to the tonsil. You can do that safely and proceed then with enucleation until the lower pole of the tonsil is approached, and then I use a snare with No. 7 or 19 wire, and use it *slowly* with the idea of crushing the tissues through which the wire enters, before severing. I think that is a very good safeguard.

I don't say that I have never seen tonsil hemorrhage, but not very often, of late years, have I seen very serious hemorrhages. I have seen them in days gone by. Still, I have been favored so much as never to lose a tonsil case from hemorrhage or from anything else.

I am very glad to hear of the use of cod-liver oil in association with calcium. I may say also that in the case of a child that had frequent bleedings and had to have the tonsils out, I gave some parathyroid extract in addition to the calcium chloride, and then did the operation without any hemorrhage at all. I had treated this case before that for recurrent hemorrhage.

I have never had a lung abscess. The nearest to that kind of trouble was that of a young woman who got up a pleurisy, which yielded readily. Why she got the pleurisy I do not know.

I think one feature that perhaps may not always be regarded in approaching an operation on the tonsils is to be very particular to have a clean mouth. That means clean teeth. That means that if there are infected teeth, they should be looked after and the infection removed. If you are operating in a dirty mouth where the teeth are out of sight, they ought to be brought into sight before undertaking the operation. Sometimes I have had the teeth x-rayed before the operation was done. I know we cannot always be absolutely sure that the mouth is perfectly clean because the x-rays sometimes deceive us,

but we can use antiseptics in the mouth before the operation, and during the operation, as well as afterward. I believe that is an important thing to do, and I believe we have had some advantages of late in being provided with a superior agent. I have found a solution of metaphen to be one of the finest antiseptics that we have, because it is practicable; it doesn't distress the patient; it doesn't pain or inflame very much. It is just as effective as mercurochrome. This antiseptic not only helps me and satisfies me but I can also avoid a great deal of after-soreness by its use. I think most of the soreness that results in adults comes from either one of two causes. One is infection, and I find you can largely control infection by use every hour or so of a spray of metaphen. The other reason why people complain of a sore throat after a tonsil operation is because a pillar has been damaged. We have to be very careful to respect even the epithelial covering of the pillars, otherwise we are going to have distress and discomfort.

In regard to anesthesia, I have used ether for children and am fully satisfied with it. My method of preventing inspiration of septic or any other kind of fluid, is to always operate with the trachea inclined so that when blood or anything else gets into it, it will run out toward the mouth. I also use an aspiration tube and believe it helps, but after all the main thing is not to have anything to suck out, to cut so close to the tonsil that there is very little blood flowing.

Most of my work is done under local anesthesia, not using cocain but procain with adrenalin, and the less adrenalin the better a good deal of the time for the immediate effects, and it gives me every possible satisfaction and I couldn't wish for anything more.

Dr. Norton L. Wilson (Elizabeth): Isn't it true that the control of hemorrhage is not due to the condition of the blood but rather to the contraction of the vessel intima?

Dr. Theodore W. Corwin (Newark): I was taught that immediate control of the bleeding is due to contraction but it is always associated sooner or later with the formation of clot within. We really depend upon the clot formation ultimately rather than the simple contraction.

Dr. Norton L. Wilson (Elizabeth): You don't mean to say that calcium has any effect on the contraction of the vessels, do you?

Dr. Corwin: No, only in promoting a clot. I think one of the great agencies in promoting a clot at the same time is the thromboplastic element of the fluids of the tissues surrounding the vessels. Perhaps the calcium activates the thromboplastin.

Dr. Frederick F. C. Demarest: Twenty years ago I made a plea before the State Society that anesthesia be recognized as a specialty. In my operative work I want my patients to bleed when I am operating on them, if at all, but I don't want to have them bleed after I get through.

With regard to chloroform, I don't advise other people to use chloroform; the only reason they can't use it is because they don't know how. (Laughter.)

With regard to the coagulation index, it seems to be pretty well recognized that coagulation time is not dependable.

I only once operated on an adult under ether. I never did it again. I refuse to operate on any adult except under local anesthesia, and I have operated on children and adults many times and I haven't had any secondary hemorrhages; I can always control, as a matter of surgical technic, any bleeding which occurs in the tonsillar fossæ after removal of the tonsil, at once.

The use of the local anesthetics and the question of procain, cocain and novocain merely is a question of the proper use of the agent as it is with regard to all the other matters connected with this work. I use a 1:500 solution of cocain with adrenalin; 15 drops on each side of the throat about the tonsil, and I don't use half an ounce, though I have seen it done with disastrous results. Half an ounce of cocain solution is not the same proposition as 15 drops of it. With regard to procain, I had it used on me once and I don't want it any more. I had a dentist put procain in my gum once, and the more he put in, the worse it hurt me. He was at my office and I said —"You certainly caused me a lot of agony. What solution of cocain do you use?"

He replied, "Two per cent."

I said, "All right, I will make you some."

I made up a 2% solution and he injected it into my gum and the tooth didn't hurt me at all; it came out, and I am still alive.

With regard to calcium chloride, it seems to me that Dr. Corwin has become so extraordinarily skilful in his operations, as the result of experience, that all the cases he has operated on lately under calcium chloride never would have bled a drop if he had not used any calcium chloride.

I might also state that procain and novocain make the tissues bulge and they become inflamed and may have secondary ulceration from pressure neurosis.

With regard to the suction apparatus, I don't like it. I don't need it. With adults in the upright position, they do their own emptying of the throat. In children, the suction apparatus can cause a vacuum in the nasopharynx followed by lung abscess. In my operation on children, I take the tonsils out in 1 minute and 45 seconds. If I had to use a suction apparatus I should have had to take about 20 minutes.

With regard to ether in comparison with chloroform, it depends on the general condition of the patient. I have seen patients killed by the unskilfull administration of ether. Ether upsets the whole physical and mental organization, and they often have patients in the hospital after a tonsil or adenoid operation for 2 or 3 days, and sometimes a week. My patients go in at noon; they are operated on and go downstairs, and unless my assistant calls my attention to them—which hasn't happened in a long time—I go home; and the next morning I examine them, and that is the only thing that is done to them.

Dr. G. E. Tuers (Paterson): I am sorry Dr. Demarest is leaving because the reason I asked for the floor is that I am an anesthetist at the Paterson General Hospital, and this man is very uncanny because he can give chloroform better than any one I ever knew. I learned chloroforming from him about 20 years ago, and he does operate in about 2 minutes. So if you want to have your tonsils out, let him give the chloroform and have some one else take your tonsils out. (Laughter and applause.)

Several years ago Dr. Demarest read a paper at Cape May on "Chloroform", and I discussed it and opposed him. Again I oppose him on chloroform. Statistics, so far as I can see, are abso-

lutely useless. When I look up the statistics for the unfortunate things that occur, they are not obtainable. These thousands of cases without lung abscess and without a hemorrhage are far beyond me.

As an anesthetist, a week ago I anesthetized a case for adenoids and tonsils that developed an abscess of the lung, and she is now in the hospital in a desperate condition. There is also a case in the hospital that was operated on 3 days ago; they are struggling with postoperative hemorrhage in that case. That is 2 cases in 1 hospital in 1 week. So, as to your thousands of cases without lung abscesses or hemorrhages, it is far beyond my understanding.

The Council on Investigation of Local Anesthesia, of the American Medical Association, on April 18, 1928, reported a number of deaths that they were unable to obtain records of except by pledging that the information would be held as strictly confidential. In our own county, I located 10 deaths in 1 year that were attributed to dilatation of the heart, embolus, pulmonary abscess, but never an allusion to tonsillectomy or to the anesthesia. Some of them are due to the anesthetic as well as to the complication.

Ether anesthesia is the anesthetic of choice. The minimum amount of ether can be given to the patients and they can return to their bed and their room and their home just as quickly as Dr. Demarest's patients can.

I thank Dr. Fisher for his plea for the anesthetists. In the Paterson General Hospital we have a standing rule that no intern in the hospital can give an anesthetic unless he has been trained by one of our anesthetists; and that anesthetics can only be administered by a graduate of medicine or dentistry. At the hospital we have had 2 explosions during the administering of ether. In the first case I was administering the ether and a spark from the motor of Luetian apparatus ignited the anesthetic. We were able to extinguish the blaze without any serious results. The second case was that of an abdominal operation when ether vapor became ignited by cautery; fortunately we were able to control it before any harm was done to the patient.

We have never had an accident of any kind with etlylene.

Dr. Frederick F. C. Demarest (Passaic): Dr. Tuers has given numbers of anesthetics for me. He has given chloroform very skillfully, and the statement that he has made that he can give ether equally successfully and send the patients down as quickly from such operations as I can, cuts very little ice because the patients get downstairs full of ether just the same. (Laughter.)

Dr. Samuel B. English (Glen Gardner): This argument has almost resolved itself, it seems to me, into the relative value of ether and chloroform as an anesthetic. Many of the patients that we see in our chest work, and such patients as come to us applying for admission at the State Sanatorium at Glen Gardner, have pathology caused by something else than tuberculosis. There is scarcely a month that we don't see 2 or 3 cases of lung abscess that have occurred following an anesthetic or following an operation on the upper respiratory tract.

Only last week I saw the sister of a prominent physician of this state, a woman who 3 or 4 years ago had a very definite right upper lobe lesion and considered herself an arrested case. She went to the hospital about 2 weeks ago for the removal of tonsils and got along very well for 10 days, when she returned home and suddenly her temperature went up to 102° and she had a flareup of the condition in her right upper lobe. I don't know whether it was due to the anesthetic or to the operation.

I remember a patient who had gone down to Jefferson Hospital primarily for a skin disease and was told that nothing could be done for the skin disease until those enlarged glands in his neck were removed. The fellow had worked hard on the farm all his life and he had not had any evidence of active tuberculosis. He had those glands taken out. On the tenth day, when he was packing up to go home, his temperature started up, and in 3 months that fellow was dead with pulmonary tuberculosis. Personally, I believe that the anesthetic started it.

Apparently we don't see very many cases that have come from good nose and throat men because good nose and throat men don't have accidents, as it would appear, but it seems to me that when we realize that 1% of our population has active tuberculosis, and another 1% has arrested pulmonary tuberculosis; that is, 2 out of every 100 people have tuberculosis, a great deal of care should be taken in connection with these operations on the upper respiratory tract, so far at least as the anesthetic is concerned.

As to lung abscess, as I say, we see 2 or 3 cases of lung abscess every month, following upper respiratory operations, and it seems to me that we get more lung abscess cases following operations on the upper respiratory tract when ether is used than we do when chloroform is used. It is always our advice to patients at our institution that if they are going to have an operation, they shall not permit ether to be given them. I remember, a number of years ago, we sent a young chap out who had an old discharging sinus, probably from an old tooth. We sent him down to Union County with the suggestion that he should not be given ether. After he got on the table, as soon as he discovered that ether was to be given, he got off the operating table and said he wouldn't have the operation done if he couldn't have anything else than ether. That idea, I think, is fairly well imbued in our tuberculosis patients. I have always been of the opinion that chloroform, for these tuberculosis patients, didn't do them very much harm. If I had the nerve, I would like to administer chloroform anesthesia to tuberculosis patients in moderate doses and observe them for a few weeks and see what would happen. I have never seen a death from chloroform in a tuberculosis patient but I have seen many disastrous results from ether.

Calcium chloride is used in our institutions as a routine method, but I don't think it does any good. I wonder if any of you have had any experience with calcium chloride intravenously. It does appear to us that 10 c.c. solution of calcium chloride (2%) given intravenously does stop the blood when nothing else will stop it, when patients are having good, big hemorrhages. I have seen patients in our institutions shed cupsful of blood. We deal in hemorrhages by the wholesale. Nothing will, at times, stop it, but in 2/3 of the cases if you give them calcium chloride intravenously the hemorrhage stops. Is it a coincidence or does calcium chloride given this way do it?

I don't believe, personally, that the clotting time of blood as taken on an instrument has anything to do with hemorrhage. When Dr. Wilson was President of the Society, some 10 or 12 years ago, we took for him, or at his suggestion at least,

with the instrument that he indicated, blood clotting time on 800 to 1000 patients every month. Dr. Wilson used to have an idea that God Almighty protected these patients from hemorrhages by giving a lower clotting time to the tuberculous patient. I never would agree with him, but we have fed patients on calcium chloride and all the rest of the stuff; but we have never held down the clotting time, and I don't think calcium chloride given by mouth has any influence on it.

Have any of you had any experience with thromboplastin? It appears to us that when we give thromboplastin, even though it does prevent hemorrhage, that we have more pneumonias following these hemorrhages. I have seen patients with a good-sized hemorrhage, after taking thromboplastin spit blood out of the mouth in chunks. I wonder if it clots the blood in the blood-vessels or is there some chemical reaction between the thromboplastin and the blood, to the end that when it hits the air, that blood clots.

Dr. Richard A. Davis (Salem): I have heard a great many points discussed but there are 1 or 2 that have not been brought out satisfactorily, to my mind. First, what, if any, are the positive indications for removal of tonsils under local anesthesia? Second, I have observed in my own as well as other surgeon's cases, that there is quite a percentage of return of either cicatricial or tonsillar tissue after the removal of tonsils. I have had some returns of my own and I have seen them return with other men who I thought were much better operators than I.

There is one thing that has not been touched on and that is the posterior pillar. I know you have all noted the abscence of the posterior pillar after removal of some tonsils, and of late I have been taking much more pains in dissecting the posterior pillar free before applying the snare. It certainly does, to my way of thinking, spoil the looks of the throat to have the entire posterior pillar removed and sometimes the uvula, but I don't see why the posterior pillar should be annihilated if we take pains in dissecting it from the tonsil before the snare is placed on it.

I had one unhappy experience occur with a patient; an adult who on the table showed no evidence of hemorrhage, but at 5 o'clock the next morning did bleed. At that time, I put a suture through the pillars and stopped the bleeding, but the next morning at 5 o'clock the hemorrhage recurred, and it also recurred between 3 and 5 a. m. for 4 or 5 succeeding days. I have never had it happen before or since, and I don't want it to happen again.

The hemorrhages that I have been troubled by are in those patients who became more or less hysteric when coming out of anesthesia. One, I remember particularly, was a large girl who became hysteric 2 or 3 hours after the operation and bled profusely, but I laid it to the fact that she was shouting, squirming and carrying on, so the increase in blood pressure caused the hemorrhage.

I have in the last 500 cases used no medication in the tonsillar fossa after removing the tonsil. I have ligated the bleeding points and used the dry sponge. I have worked with a man who used tannic acid solutions and powdered alum on the sponges but believe that it caused more inflammation and more irritation than where one uses the plain dry sponge.

I think Dr. Fisher said that he used no sponges and picked up the bleeding points and ligated them. I would like to learn how he picks up the bleeding points with the tonsil fossa full of blood, unless he removes it by a suction apparatus or a dry sponge. It is a difficult matter, I think, to find the bleeding point when it is covered with blood and clots.

Dr. Marcus W. Newcombe (Brown's Mills): I am glad to hear the gentleman from Passaic say that this is the day of specialists so far as the anesthetist is concerned. I think one of the most important parts of an operation is the question of who is to administer the anesthetic. I wonder how many of you men have had a number of cases of tuberculosis which have been lighted up by tonsil operations where ether is used as the anesthetic. We men in tuberculosis work see a number of patients who never knew they had any trouble until they had their tonsils removed or some other operation where ether was used as an anesthetic. It seems to me there is just one way to cut down some of these cases of reactivity or lighting up of a tubercular condition, and that is a thorough chest examination before you give ether. That applies to all surgical procedures as well as those upon the throat.

I have heard chloroform and ether mentioned, but no one has mentioned gas and oxygen. Why can't tonsils be taken out just as well under gas and oxygen? I don't see many cases but occasionally a friend will come in and I always recommend, if the patient has ever had any lung condition, never under any circumstances give them ether as an anesthetic unless it is a case of life or death and they are going to die anyway, because if they have a healed-in lesion you are taking a long chance that irritation from the ether is going to light up the old tuberculous condition. I certainly prefer chloroform or gas and oxygen, and I prefer gas and oxygen to chloroform because they say it is less dangerous. They do gall-bladder operations, breast amputations, abdominal operations under gas and oxygen. Why can't it be used in nose and throat work with less likelihood of lighting up any old tuberculous condition?

We give calcium chloride and calcium lactate in pulmonary hemorrhage and I can't say that it does any good, but the thing I want to impress upon you is that every patient who is going to have a tonsil operation should first have a thorough chest examination to find out if he has an old lesion in the lung, and if so you certainly should not give ether as an anesthetic.

Dr. Richard D. Freeman (South Orange): I am a general surgeon, and the 2 points that have been brought up have been to me extremely interesting. First and foremost, the question of hemorrhage, and next the question of anesthesia.

I don't see why hemorrhage in a tonsil case should be on any other plane than hemorrhage anywhere else in the body. If the general surgeon has a hemorrhage anywhere, what does he do? He locates the vessel bleeding and ties it. That is the only sound surgical method of permanently controlling any hemorrhage, regardless of where it is. Hemorrhage does not in any sense ever depend on what you give internally. If you have a serious hemorrhage from the tonsil—and I have done many tonsil operations myself, all of which might not meet with the approval of this august body, in their end-results—it must be controlled absolutely and permanently by tying the partcular vessel which is bleeding, and in no other way.

One reason why we get some bad tonsillar hemorrhages, in my belief, is because some large

vessel, instead of being cleanly cut, as is the usual surgical procedure, is torn. You have a jagged tear of the vessel. Therefore, that vessel cannot contract as it ought normally.

With regard to anesthesia, I listened with considerable delight to Dr. Demarest. Where I was brought up and got my training, we never used anything but chloroform. I have seen a very long major operation gone through with on 2 drams, 120 minims of chloroform. My astonishment when I first came to this country was very great to see a man use chloroform in the same prolific way that he used ether. That is the whole difficulty. Dr. Demarest rightly said that men who use chloroform here don't know how to use it because they haven't had the experience. Anybody who has had the pleasure of doing a surgical operation under chloroform and the same operation under ether knows they are not to be compared either in safety or pleasure to the operator or advantage in getting a proper view of your field. I believe chloroform is a very safe anesthetic, if properly administered.

There is one precaution I think ought to be taken if anyone wants to use chloroform; it is a dangerous thing to give chloroform to any patient who has a low blood pressure; that is, abnormally low. A patient with a low blood pressure will not stand chloroform anesthesia well, but that is practically the only type of patient who will not, and certainly it does not stir up the severe chest symptoms which ether does. Unfortunately, the deaths from ether anesthesia are delayed; those from chloroform occur promptly. I have in my career seen a great many deaths which were undoubtedly due to the ether anesthesia but they were not so recorded, and, unfortunately, in the operation for tonsillectomy the reaction in the throat is the last reaction which disappears. Therefore, it is necessary to have a very fair or rather deep anesthesia to make your operation comfortable. I do not think the gas-oxygen anesthesia is a good anesthesia for a tonsil operation. I think you have to use ether or chloroform. To my mind, chloroform is preferable. I have not had the sand to use chloroform myself in a great many operations because the prejudice against chloroform anesthesia in this country is so great that I think a man would be subject to a great deal of criticism if he used it, but I think it is a mistake and I think if there were more men competent and trained to use chloroform anesthesia for all surgical operations it would become the one of choice.

Dr. Norton L. Wilson (Elizabeth): Is it not true, Dr. Freeman, that the general surgeons are now recognizing that ether, and particularly choloform, has a very destructive effect upon the liver; not only upon all the tissues of the body but particularly upon the liver, and chloroform more so than ether?

Dr. Richard D. Freeman (South Orange): I think that is true with regard to chloroform; that is, if given in large quantities. I never have seen an acute yellow atrophy, which is the complication that ensues from anesthesia, and I don't know in how many thousands of cases I myself used cholorform when I was intern and house surgeon, but I never have seen a death from chloroform anesthesia.

Dr. Frederick F. C. Demarest (Passaic): Mr. Chairman, because I did not want to take up the time I avoided going into the technic of operations under chloroform and, therefore, didn't have an opportunity to say that in all of my patients I protect, 8 hours before operation, by stimulation of the glycogenic function of the liver to avoid detrimental effects of chloroform. I have never had any fatty disturbances of the liver on account of chloroform.

The other point is that chloroform when it is not allowed to cause secondary dilataton of the pupil, never causes any systemic disturbance.

Dr. James A. Fisher (Asbury Park): Another thing about chloroform is that the container once opened renders it unsafe to use again some other day.

Dr. Demarest: Stale, opened chloroform nearly lost me a patient in the initial part of my work and thereafter I have never have had a case operated upon unless I see the chloroform ampule opened in my presence.

Chairman Emerson: I would like to say just a few words relatve to clotting time. There is no doubt that clotting time is not an absolute indication of the liability to hemorrhage, but I do feel that the administration of calcium lessens hemorrhage. Calcium chloride, as an old Irishman told me once, "is a dose for a dog"; it is nasty-tasting stuff, and I rather prefer the calcium lactate. The disadvantages of it is its bulkiness and its insolubility, so I always give it in a syrup of some kind.

I feel that one reason why some of the men don't get the effect they desire is because they don't give enough. Dr. Corwin tells us how much he gives. Dr. Hare used to tell us that while there were only 2 or 3 grains of iron in the body some men argued that if you wanted to improve the character of the blood it was foolish and unnecessary to give a patient more than ½ or ¼ gr. of iron because it could not be absorbed, and that you were giving in 1 dose more iron than there was in the patient's whole body, yet he laid great stress on the fact that in anemias and conditions in which iron was indicated, it was empirically shown that if you gave those patients heroic, large doses of iron—4, 5 or 6 times as much as the whole body content of iron—they improved very rapidly, where as if you gave them small doses you got no effect. He did not offer any explanation as to whether that was changed in the gastrointestinal tract but he offered it as an empiric fact that if you wanted to get results from your iron therapy you wanted to give large doses. I think the same thing holds true of calcium chloride and calcium lactate. I don't think 30, 40 or 50 gr. calcium lactate given in 3, 4 or 5 large doses 1, 2 or 3 days before the operation does any harm at all, and it has been my observation that I had less hemorrhage.

I had 2 patients, a woman and her daughter, German maids in a household, who gave a very distinct history of bleeding, and one of them had a clotting time of 16½ minutes and the other a clotting time of 16 minutes. I gave them calcium lactate in large doses for 2 days and then had their clotting time taken, and one of them had a clotting time of 5 and the other of 7 minutes. I operated upon them without any bad effect at all. Another thing to corroborate what I said about clotting time having nothing to do with whether they are going to bleed. A few years ago a nurse came to me, a graduate of Mountainside Hospital. She had large tonsils and wanted me to remove them. Being a graduate nurse, I confess I was rather perfunctory. I just casually looked at her

throat. She had the day all set and I operated on her with most satisfactory results at Orange Memorial Hospital. When I examined her 2 or 3 days afterward, she confided that she was a hemophiliac. I told her—"You were very foolish not to tell me that you were a bleeder. Just supposing you had died, every one of these men who had refused to take you for an operation would have condemned me". The girl had her tonsils out and she didn't have any bad effects from it.

We have 7 or 8 men at the Orange Memorial Hospital who are operating and either I, as the Chief Surgeon, or Dr. Tymeson, are often consulted. Many times, with those so-called oozings, all you have to do is to take a piece of gauze and wipe the clot out. Only a short time ago I was called to see a child 3½ years old with bleeding from the pharynx. It had been operated on early that morning and this was late in the evening. The child was so exsanguinated that it had to be transfused. This child had not bled from its tonsils, but its pharynx was full of clot. I took a piece of gauze on my index finger and just scrubbed that pharynx thoroughly so that the clot squirted right out of the child's nose and ran over its face and down onto its chest. The hemorrhage ceased at once and very shortly after that we transfused the child and had no further bleeding. Of course it may have been due to the transfusion, but there is a point that I think we all ought to take into consideration, and I have no doubt that all of you do it, although it was not brought out in the discussion; often we are called on to see cases that have bled on the outside or that have been operated on and have gone home, and there is secondary bleeding in which the child is markedly exsanguinated. In those cases, nothing seems to be as good as human blood. In those cases the transfusion does two things. The serum seems to act to stop the hemorrhage at once and it gives those patients a tremendous pick-up. Looking back over my experience of a number of years, I have had and seen a lot of hemorrhages, some of them my own and more from elsewhere, and the effect of a good, liberal transfusion in a case that has been exsanguinated is quite miraculous. They are up on their feet and go back on the job again in a week.

I draw the line very distinctly in anesthesia between small children and adults. If anything, I am just as emphatically opposed to the use of chloroform as Dr. Demarest is in favor of it, particularly in small children. I can see with Dr. Demarest and Dr. Freeman that one reason why we get bad results in chloroform is because we don't know how to use it. The average man uses it much too freely. The men who have written on anesthesia tell us that when giving ether, because of its rapidity of evaporation, almost the instant you remove the cone you cease giving your patient ether, but that chloroform because of the much greater density and heaviness of its vapor is in the bronchi and in the lungs, and even after you remove the cone and cease giving your chloroform, the patient continues to absorb considerable chloroform for some little period of time. Then, too, in small children the average anesthetist, if he is not an expert, will find that these children are frightened and they struggle and cry, take deep inspirations, and in the anesthetist's anxiety to get that patient under the anesthetic he unconsciously, without realizing it, pours on a little more with a bad result. I corroborate every word that has been said by Drs. Newcombe and English about giving adult patients, and particularly tuberculous patients, ether, but I am afraid of chloroform in small children. Dr. Hare was the President of the Hyderabad Commission for the Investigation of Anesthesia and he said that there was a climatic difference; for instance, that in New Orleans, on the Gulf of Mexico, in England, in India and on the Mediterranean, chloroform is a much safer anesthetic than on the Atlantic seaboard. That is the one thing that anyone giving an anesthetic for a tonsil operation will do well to remember. In chloroform anesthesia if you get any bad results, you get them almost immediately, and the deaths that have been reported have been cases in which the child was probably struggling, I concede, due to unskilful administration, but we must often do a tonsil and adenoid operation without the expert anesthetist. Very often the members of the family are very much offended if the family doctor is not given an opportunity to give the anesthetic, and I have had a number of instances in which I have voiced my reason for preferring an expert anesthetist and the family protested very vigorously. They can't seem to get it through their heads that their family doctor, who has been taking care of them for so many years, is not just as good or better than any expert anesthetist that I can suggest. All those points have to be considered.

TREATMENT OF ANEMIA IN INFANCY AND CHILDHOOD

J. O. McDonald, M.D.,
Trenton, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

I would like to thank the society for giving me an opportunity to present some ideas on the cause and treatment of secondary anemia in children, which I hope will at least provoke some valuable discussion.

A large number of children who are brought to us suffering from malnutrition and asthenia will be found to be suffering from varying degrees of secondary anemia. The successful treatment of these cases will depend largely on our ability to determine the cause of this anemia and to institute appropriate measures to relieve it.

It may not be out of the way to state here that the health and well-being of a child depend somewhat on the food the mother takes while carrying that child.

Diet and hygiene of mothers. The expectant mother should be offered a diet high in fresh fruit and vegetables, and she should have as much outdoor exercise as possible. This not

only increases the viability of the child but has a tendency to lessen the anemia the child will develop during the early months when it takes an almost exclusively milk diet.

Diet of the child. The child should have leafy vegetable juices, then the vegetables and fresh fruit as early as possible. When anemia develops as a result of diet poor in iron, it responds readily to the addition of proper foods to the diet. Inorganic iron preparations are very ineffective in combatting anemia due to improper diet. Infants kept too long on a high milk diet develop anemia of this type. I restrict milk to 1½ pints, after 10 months to 1 year of age. Anemia also develops in older children who will not eat vegetables.

All feeding between meals should be discontinued. The child should be offered a wide variety of green vegetables, cream soups, broths in which green vegetables are cooked, and if it will not take such food it may be given one of the proprietary preparations containing the juice of green vegetables. Food ferrin prepared by the Battle Creek Company is sweetened so as to be readily taken, and 3 tablespoonsful contain the concentrated juice of 1 lb. of green vegetables.

I would like to call attention to the value of dessicated whole liver. It can be given in increasing doses, starting with 5 gr. in orange juice, and increased rapidly to 3 or 4 drams a day. I have used this treatment on 39 cases from February 10 to the present date. The average improvement in the hemoglobin reading (Dare) as a result of this treatment used over a period of 6 weeks, is 20%. Three of the children rebelled. The mothers of 2 of them continued the treatment, so that 38 out of 39 of the mothers have been sufficiently encouraged to carry out the whole treatment. I have never obtained such results with any other method. On Saturday, June 2, I saw a child in my office who has secondary anemia apparently as a result of tonsillar infection, with no exacerbation of the infection, and who has been on an organic iron preparation for 1 month, without the least benefit.

The liver contains .75% Fe_2O_3. The chief benefit, however, seems to be due to the stimulating effect on the blood forming organs. The dessicated liver is equal to 5 times its weight of fresh liver.

Anemia following acute infection. This condition will quickly improve if it is possible to send the child to a climate where it will be constantly kept out in the sunshine. I am inclined to prefer the mountains of North Carolina. If impossible to send the child there, Atlantic City will help. If impossible to send the child to either of these places, quartz light exposures are advised. Over exposure should be avoided.

Anemia due to chronic infection. This comprises a large group of cases. The cause is usually infected tonsils and adenoids. They will respond to change in climate, quartz light, and the liver treatment only temporarily. As soon as the treatment is discontinued, they will quickly relapse, especially if re-infection occurs. The only satisfactory treatment is removal of the cause. In 2 cases of anemia due apparently to tonsillar infection, an exacerbation lasting in 1 case 7 days and in the other 10 days, almost nullified the benefit the children had received as a result of 6 weeks' treatment. If we eliminate the cases of secondary anemia due to faulty diet and bad hygiene the remaining number will be found almost entirely due to chronic infection. These children are brought to us with the complaint of debility, poor appetite or emaciation. If the underlying infection is recognized and removed the child will probably develop into a normal healthy individual. A large responsibility rests on the physician, whose advice is sought in these cases.

Lack of sunlight. It has been shown in industrial cities in our latitude that during the months of December, January and February, there is no ultraviolet light in the sky. There is no doubt but the condition can and should be improved. Every user of coal should endeavor to burn it as completely as possible. Owing to the scarcity and increased cost of hard coal in recent years, a great many concerns, both little and big, are burning soft coal in grates designed for hard coal. This not only creates a nuisance but is a distinct health menace. I believe the medical profession

should be more active in endeavoring to improve this situation.

Anemia due to poisoning of intestinal parasites. The exposure of children to intestinal parasites, by household pets, is very great. The ground contains ova of the parasites. It is an ordinary sight to see a child in a home crawling around the floor among the household pets. This should never be permitted. Even the breeder of dogs always tries to find a place to bring up a litter of puppies where there have previously been no dogs.

Anemia due to tuberculosis, malaria, lues, rickets and nephirtis. These cases would improve with proper treatment of the underlying cause. It is likely that the cause of anemia in nephritis will be found partly due to the cause of the nephritis itself.

DISCUSSION

Dr. Julius Levy (Newark, N. J.): I think that you have an additional responsibility now in this question of anemia, since with the rapidity with which new ideas get about it has reached the public that liver is the cure for pernicious anemia. I think we ought to constitute ourselves the protectors of the pocket-books of the public and disillusion them from belief that liver is something that is essential in every infant's life and if they don't get it they surely will get anemia, and if they get anemia, liver is a cure. I think it is well to keep in mind the research work that was done on liver in relation to diseases. The liver extract is supposed to have a definite detoxicating action on the blood.

You may be familiar with the work that has been done on seeds, in which it was definitely shown that seeds that were implanted in blood of patients with pernicious anemia did not develop properly, but if planted in the blood of pernicious anemia patients that had been treated with liver extract, they did grow properly, indicating there was some definite detoxicating action. We shouldn't think of liver as a way of supplying iron not available otherwise. I get the impression that infants that are fed properly and surrounded with proper hygienic care do not get anemia to any degree. I think we ought to emphasize that point. Perhaps our ideas of anemia need to take into account the fact that hemoglobin of children under 3 is practically about 70% so you mustn't think that 70% hemoglobin indicates anemia, though hemoglobin is influenced by protein diet.

I was rather interested to note that Dr. McDonald had the courage to recommend not more than a pint and a half of milk a day. Again you are confronted by popular propaganda. You know the dairy industries are highly organized and able to employ very high-powered salesmen. I know some of them are our own experts. A very prominent health man has disappeared from the field. It is not generally known that he is employed by one of our biggest milk industries, and articles appear all the time indicating that infants need a quart or perhaps 2 quarts of milk a day. The articles are signed by a very scientific man. You don't know he is representing that industry.

I have followed exactly the lines indicated by Dr. McDonald. I feel the infants do better on general diets with no more than a pint and a half of milk.

I know it has been said that the iron preparations are not effective in the treatment of anemics. We checked up carefully a series of cases. We can't help but feel the administration of iron citrate, about ¾ gr. every other day, is effective in severe anemias and that the saccharated subcarbonate of iron is effective. Just recently I saw 2 patients, twins, that permit me to emphasize another point. Anemia, I believe, was created by a doctor who had some theories about diet. I think some fads in diets are increasing the anemias which the rest of us have to cure. This man is a great faddist on protein milk. If a chld doesn't improve, that is the child's fault and he keeps him on that, often to the exclusion of everything else, until it takes protein milk. The twins came along with very grave anemia which cleared up by merely putting them on a general diet.

Dr. F. I. Krauss (Chatham): I think Dr. McDonald's and Dr. Levy's points about meat preparations bring us back to the former idea of using beef juice. A great many of us have gotten away from the idea of giving extract of beef early in life. Dr. Coit was a little bit against giving beef juice early in life and some of us, if I am not mistaken, have followed his ideas. Dr. Holt and some of the older pediatricians emphasized the use of it very early in life. Now we are swinging back again to the value of meat in early life. I have no hesitation, personally, and I do as a routine like to give meat preparations very early, beef particularly.

To these anemic children, I frequently give meat extract twice a day. I have not seen it upset their nervous systems except in one or two instances where they were a little restless at night. I feel it has a distinct benefit on general tone.

We must not forget the values of egg yolk. It contains a great deal of iron. Hess emphasizes its value, especially in lemon juice milk. It is a very easy way to give iron to these children very early; as early as 6 months of age. I personally believe that meat and egg preparations are possibly of more value in combating anemia than the excessive use of green vegetables.

Dr. E. G. Hummel (Camden): In the Cooper Hospital we have made it routine practice in all cases of anemia to use ultra-violet rays in conjunction with a carefully regulated diet of green vegetables, egg yolk and a high protein diet with liver or liver extract. After adopting this method routinely we had much better results.

Dr. McDonald: I want to make it clear I had in mind the whole liver, not extract. Mothers put it in cereal or orange juice, or broth, in anything of that sort. I don't think there is any reason for neglecting other articles of diet. I think if a child is permitted to have natural sunshine and fresh air, which it is entitled to, and a diet prepared in such way that it can be digested, it will not have anemia in the first place, except those children who have anemia due to infections. The whole liver is not very expensive and so the treatment costs about $1.25 a week. I am not offering it as the cure-all, but it interested me to see the children build up very quickly.

So far as the ultra-violet ray is concerned, I have used the lights in my office. I think they are good in hospitals and institutions, but I haven't seen fit to make people come in except when we treat them for some other purpose. I am not able to have patients come unless I charge them some moderate fee and they need a large number of treatments.

SIMPLIFIED INFANT FEEDING IN HEALTH AND DISEASE

C. P. Lummis, M.D.,
Bridgeton, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928)

If there are any pediatrists in the audience, I wish to apologize for presenting this paper. As the majority of you are general practitioners, I have chosen for the subject of my remarks "Simplified Infant Feeding in Health and Disease".

Knowing and anticipating your desire for a practical presentation of the subject, I will endeavor to briefly, and in as practical a manner as possible, outline what I have found to be of value in the feeding of both sick and well infants. Some of the subject matter is original, but the larger part of it is an adaptation of the methods of feeding prescribed by various experts in infant nutrition. This paper is presented as a plea for the adoption of simple, scientific and logical methods for the feeding of infants in the home, the office or the hospital.

You all treat infants, and the late Dr. Godfrey Pisek once said that "A thorough knowledge of infant feeding is over 50% of the battle in treating infants". In feeding infants a knowledge of food values in calories, together with a knowledge of the nutritional requirements of the infant in respect to the body weight in pounds, is essential. Also a working understanding of how to combine the various food elements in such proportions and in such form as can be digested by the infant.

Normal infants require, as you all know, protein, carbohydrate, fat and mineral salts, and the fat or at least a large percentage of it can often, to the advantage of the infant, be replaced by carbohydrate. This is particularly so in young infants. The feeding alphabet should read somewhat as follows: A fat baby requires 40 calories per pound body weight each day; an average weight baby requires from 45 to 50 calories; an underweight or thin baby 55 to 60; and an athreptic infant requires from 60 to 70 calories per pound body weight.

One ounce of whole milk contains 20 calories; 1 oz. skimmed milk, 11 calories; 1 oz. sugar contains 120; and 1 oz. of cereal flour, 100 calories.

Four level tablespoonsful of cereal flour equals 1 oz.; 4 level tablespoonsful of Dextri-Maltose equals 1 oz.; 2 level tablespoonsful of cane sugar equals 1 oz., and 2 level tablespoonsful of Karo Syrup equals 1 oz.

An infant requires daily about 1½ to 2 oz. milk for each pound body weight. Infants under 10 lb. body weight require 1 oz. sugar in 24 hours, while those over 10 lb. require 1½ oz. In certain cases infants under 10 lb. weight can receive more than 1 oz. sugar a day. A normal infant should receive 1 to 2 more ounces at each feeding than its age in months and should be fed every 3 hr. until 6 or 7 months of age and then every 4 hr. It should take an infant from 8 to 20 minutes to take all the food at a given feeding. If the food is taken in less than 8 minutes the hole in the nipple is too large; while the hole in the nipple is too small if more than 20 minutes are required to take a given feeding.

An infant should be held in very much the same position while taking the bottle as is used in breast feeding and any food not taken at a feeding should be discarded. Always give written instructions to nurse or mother how to prepare the formula; keep records of all feeding cases; weigh or have weighed weekly all feeding cases and have printed on the bottom of your feeding blanks in bold type—"Give no Cathartics; If the Bowels Don't Move Once in 24 Hours, Give an Enema."

You will find it very advantageous to start all young or premature infants, and those infants who have never had cow's milk, on milk that has been boiled 3 minutes. The controversy over boiled milk has now been definitely settled in favor of the 3 minute boiling time

and you will find, to your entire satisfaction, that young infants can digest the boiled milk much better; the stools will be smooth and uniform in consistency; the fat will be so changed that it will be well tolerated and a much higher percentage of proteid can be given than would be the case with raw milk. Dextri-Maltose will, to a large extent, overcome the constipating effect of boiled milk. When an infant has been taking milk for 6 to 8 weeks, there will seldom be any difficulty when the change to unboiled milk is made. Infants under 3 months of age do not digest cereal gruels very well, and, should they be used, it would be much better to dextrinize them by addition of some diastatic ferment such as Cereo, Taka-Diastase or Maltine. The raw starch is thereby converted into digested starch and in that form is much better tolerated by young infants. It is always advisable to figure a young infant's requirements in calories and then begin somewhat below the number of calories estimated and by small increases in the strength of the food made every 2 or 4 days, raise the caloric value of the formula until the infant's requirements are met. Small increases every few days are far better than larger increases made at longer intervals and the infant's tolerance is built up in a much more satisfactory manner.

It requires 30 to 34 calories per pound body weight to meet the requirements of an infant and the additional calories above this amount are required to provide the necessary gain in weight.

An infant, as you all know, should gain 1½ lb. a month for the first 4 months and 1 lb. monthly for the next 8 months. It should double its weight at the end of 6 months and treble it by the end of one year.

In feeding normal infants the method of simplified feeding recommended by Dr. Roger Dennett, of New York, has given excellent results. These infants have been breast-fed for a few weeks and made a satisfactory gain in weight, when a sudden failure of the maternal fount has made artificial feeding necessary. This is just the time when judicial management is so essential. Improper methods of feeding at this time are apt to result in profound digestive disturbances and make what should be an easy feeding case a difficult one.

By using the Dennett method you use a certain amount of milk and water, boiled 3 minutes, to which is added Dextri-Maltose.

Should you wish to feed a baby 8 weeks old and weighing 10½ lb. by this method, you would conclude that the baby, being of normal weight, would need 40 calories per pound body weight, or 420 calories in the 24 hours formula. Remembering the simple rule for the amount of sugar required, you decide to use 1½ oz. This would furnish 180 calories; so you deduct 180 from 420 and find that 240 calories need to be furnished by milk. As each ounce of milk contains 20 calories, you divide 240 by 20 and find that 12 oz. of milk are required. Should you wish to furnish 45 or 50 calories per pound body weight, it would be a very easy matter to accomplish this by adding additional milk. You would feed the infant every 3 hours and give it 1 to 2 oz. more than its age in months at each feeding. Therefore, you decide to feed 3½ oz. 7 times daily or 24½ oz. food. As these formulas are all to be boiled for 3 minutes, a few ounces will be lost by evaporation. You would then take 12 oz. of whole milk and 16 oz. of water and boil them together for 3 minutes, stirring all the while. Remove from the stove, place in a vessel containing cool water and stir until cool. When formula is luke warm, add sugar. At short intervals the formula may be increased by adding 1 or 2 oz. more milk and 1 or 2 oz. less water. When the infant reaches 3 months of age, a cereal diluent can be used instead of water and boiling will be no longer necessary. However, it is always best to continue boiling the milk during the summer months.

I have found the feeding of acidulated milk formulas or the boiled milk and water formulas the most satisfactory foods for normal young infants.

In feeding premature infants and full-time infants who weigh 6 lb. or less, it is often advisable to begin with skimmed milk and water formulas boiled 3 minutes to which is added 1 oz. sugar.

By using the Chapin dipper and removing 7 oz. of cream from the top of a quart bottle of

milk, skimmed milk is obtained. By removing 1 oz. less of cream every few days the calories in the formula can readily be increased and the infant's food tolerance raised. Should whole milk be used for this class of infants, the tolerance might be lowered and then the infant would have to be classified as a difficult feeding case. Any one here, who has hospital pediatric work to do, will agree with me when I say that these cases will tax your ability to the utmost.

As an illustration of a simple method of feeding an infant belonging to the above classification, let me cite a hypothetic case: Suppose on May 1, 1928, you had brought to your office or into your service in a hospital a full-time infant, 4 weeks old, who weighed 6 lb. You decide you will feed this infant 50 calories per pound body weight and find that 300 calories are necessary each day to meet its requirements. You will give 1 oz. of Dextri-Maltose which furnishes 120 calories, so by deducting this sum from 300 you will find that 180 calories will have to be furnished by milk. Remembering that each ounce of whole milk furnishes 20 calories, you divide 180 by 20 and find that 9 oz. of milk are needed. Instead of using whole milk you begin with skimmed milk. Every second or third day you remove 1 oz. less cream until whole milk is being used in the formula. By this method you could, in from 2 to 3 weeks, reach a formula which would furnish sufficient food to meet the infant's requirements; the tolerance of the infant would be increased and further increase in the strength of the food could be readily made. The same principles would apply to any other form of feeding young, underweight or premature infants; whether acidulated milk, thick cereal feedings, dextrinized gruel with the addition of evaporated milk or dried skimmed, one-half skimmed, or whole milk with or without the addition of sugar was used.

I have found dried skimmed milk, with or without the addition of sugar, a very satisfactory food to start with for premature or full-time infants, who weigh 6 lb. or less. These infants tolerate fat poorly but can take the above mentioned food quite well. Suppose you wanted to feed an infant weighing 5 lb. dried skimmed milk and sugar. If you wished to feed 60 calories to each pound of body weight, 300 calories would be needed. By deducting the calories to be furnished by the sugar, which would be 120, you would need 180 calories to be furnished by the dried skim milk. Each ounce or 4 level tablespoonsful of dried skim milk contains 104 calories; therefore, 7 level tablespoonsful of the dried skimmed milk would be required each 24 hours. These methods are only temporary ones, but serve a very useful purpose by raising food tolerance so that milk, gruel and sugar can be fed at a later date.

I wish now to briefly describe some simple methods of treating difficult feeding cases. In this group are included cases of athrepsia, vomiting, pylorospasm, diarrhea, either continuous or intermittent, failure to gain in weight, and sugar tolerance. Some of the cases in this group are primarily difficult feeding cases; as with premature infants and full-time infants considerably below the normal weight; while others are the result of bad previous management. The methods previously outlined are usually effective in feeding premature infants and the underweight full-time baby. The cases of athrepsia offer considerable difficulty in management.

An individual study of every case, including a careful history of the previous feeding, will often be of great assistance in deciding on the proper management. These infants often have a paradoxical weight curve. By that I mean the more you increase the food values in the formula, the greater will be the loss in weight. These infants have a very poor tolerance for all food elements, vomit considerably, often have diarrhea and almost invariably have a marked secondary anemia. Blood tranfusion performed 2, 3 or 4 times and using from 100 to 150 c.c. of blood is often life saving in these cases. I will enumerate some methods of treating these cases which have proved their value.

By feeding boiled skimmed milk and water without sugar for a few days and then gradually adding sugar up to full amount for body weight, one can often build up tolerance and

then by gradually making small increase to food every few days, a satisfactory formula can be reached which will fully meet the infant's requirements and one the infant can digest. A satisfactory gain in weight can then be obtained.

The mistake one sees most frequently in going over the previous histories of these cases, is failure to recognize the very low tolerance of these infants. The formulas have been changed frequently but the strength of the food has not been decreased and, of course, nothing but failure could result. Powdered skimmed, half-skimmed or whole milk, with or without sugar are also useful to start on in such cases. These infants frequently have considerable mucus in the vomitus and lavage once daily, using 1% bicarbonate of soda solution is often of great benefit. A gain in weight cannot be expected until the tolerance is raised sufficiently to permit feeding of the required number of calories in the formula. However, one should always strive to give a formula which will furnish from 30-34 calories to each pound body weight and thus avoid a weight loss.

The method advocated by Dr. Charles Gilmore Kerley has given me good results in feeding athreptics. By this method dextrinized gruel with the addition of gradually increasing amounts of evaporated milk is used. Each ounce of evaporated milk contains 40 calories and remembering that 1 oz. cereal flour contains 100 calories, the food value of the formula is easily computed. If you wish to feed an athreptic infant 4 months old and weighing 9 lb., you could estimate the number of calories necessary to meet the actual requirements to be about 290. This is obtained by multiplying the weight, 9 lb. by 32, which is the number of calories required to meet the actual requirements without allowing for any gain in weight. By feeding 4 level tablespoonsful of cereal flour each day in the form of dextrinized gruel, 100 calories would be furnished. If you deduct this sum from 290 you will find that 190 calories will have to be furnished by evaporated milk. By dividing this sum by 40 the number of calories contained in each ounce of evaporated milk, you will find that 5 oz. of evaporated milk will be the amount to add to the 24 hr. formula. As these infants require about 70 calories per pound body weight, it is an easy matter by increasing the evaporated milk every few days to furnish a strong enough food to cause the much sought gain in weight.

Another very useful method is the one suggested by Dr. Henry Dwight Chapin and known as thick cereal feeding. By this method, farina, skimmed milk and sugar are boiled together for 20 minutes. The food is so thick that a very large hole in the nipple is necessary. Dr. Chapin was not given to figuring the calories, so I have added the estimation of the calories to this method. In some infants this food will have to be fed from a spoon or a Breck feeder. If you should decide to feed the above cited case by this method, you could use 14 oz. skimmed milk, 20 oz. water, 6 level tablespoonsful of farina and 2 level tablespoonsful of cane sugar and boil the formula for 20 minutes. By gradually increasing the skimmed milk and decreasing the water, and adding another tablespoonful of sugar, the formula could soon be built up sufficiently to cause a proper gain in weight.

While protein milk is used by some for feeding athreptics, I have never used it much for these cases excepting to correct a fermentative diarrhea. The same applies to acidulated milk.

After using the methods just described for feeding athreptics for a certain period or until a certain amount of weight has been regained and the infant's food tolerance has been raised, a change to whole milk, gruel and sugar, lactic acid milk with Karo syrup or Malt Soup Extract, wheat flour and milk may be made and further weight increase may be obtained. In fact, by gradually increasing the calories and building up the tolerance the infant's weight may be brought up to normal.

One should always have in mind, in estimating the caloric requirements for an athreptic or an underweight infant, that the number of calories given should be increased as rapidly as possible until they correspond to the number the infant should receive for its normal weight.

If an infant, aged 5 months, whose birthweight was 8 lb. weighed only 11 lb., then the calories should be increased until there would be given the number necessary to feed a baby weighing 15 lb., this being the weight this infant should have reached at 5 months of age.

Vomiting, in infants, if of short duration, is very easily corrected by using skimmed milk and water formulas boiled 3 minutes to which no sugar is added; saccharin being added if necessary. When vomiting ceases, a portion of the sugar may be added and by the addition of a certain amount of sugar every few days, the amount the infant should receive is reached. Dried whole, one-half skimmed or skimmed milk without sugar is also valuable as is skimmed milk and gruel boiled 3 minutes. If vomiting has been of considerable duration, the weight is usually below normal and some of the measures mentioned in the feeding of athreptics, premature and underweight infants will be of service.

In feeding cases of pylorospasm, the Chapin thick cereal feeding is very satisfactory, as are the feeding of dextrinized gruel, with the addition of evaporated milk and dried skimmed or half-skimmed milk. These foods are much better retained in this condition, if atropin sulphate up to the therapeutic limit is given 15 minutes before each feeding.

Excellent results are reported by Dr. H. Booker Mills, of Philadelphia, from the feeding of thick cereal and mashed potatoes in cases of pylorospasm.

In feeding vomiting cases, always obtain as accurate a history as possible. If an infant has a clean tongue, is happy and contented, has normal stools and is making a satisfactory gain in weight, one can discredit the mother's or nurse's statements that the baby is vomiting all its food.

Another group of cases that is likely to give considerable trouble is the one where there is either a continuous or a remittent diarrhea. These infants have 4-10 loose, green stools, containing considerable mucus, a day. They cry much of the time, usually have a napkin erythema and either fail to gain in weight or gain in the interval between the attacks of diarrhea only to have a rapid loss of weight when the diarrheal attacks take place.

To Finkelstein must be given the credit of first calling the attention of the medical profession to sugar intolerance as the cause of a very large proportion of these diarrheas. In this country these cases are called fermentative diarrheas. These infants have acid stools and it is useless to continue feeding them sugar in any form and one can never expect a gain in weight until the diarrhea is checked. Profound changes in the mineral metabolism take place if this condition continues very long and leads to what Finkelstein calls decomposition. The introduction of Eiweiss Milch to the profession by Finkelstein has provided us with a specific food for treating fermentative diarrheas. It is quite difficult to make Eiweiss Milch, excepting in a hospital, but the powdered protein milk now on the market is very reliable. By adding a certain amount of the powder to a measured quantity of water a food is obtained, the analysis of which very closely approaches Eiweiss Milch. This food is very high in proteid and low in carbohydrate.

The addition of calcium caseinate, in the form of Larosan or Casec, to the amount of 2/3 to 1 oz. to the 24 hr. formula of milk and water, is also very effective in treating fermentative diarrheas. After an infant has been constipated for 2 or 3 days, it can be fed equal parts of milk and water boiled 3 minutes to which 2 level tablespoonsful of Dextri-Maltose are added. The Dextri-Maltose can be increased 1 tablespoonful every 2 or 3 days until the full amount for the child's weight is given. Boiling the milk can be discontinued in about 2 weeks.

It is a good plan to advise the mother or nurse who is feeding an infant subject to recurrent attacks of diarrhea, to discontinue sugar and boil the milk for 3 minutes as soon as diarrhea develops. This may correct the condition without any further change in the formula. Sugar can be added to the formula when constipation develops. Never add the full amount of sugar at one time, as diarrhea would likely recur.

The next class of difficult feeding cases I

wish to discuss is the one where failure to gain in weight is the chief presenting symptom. In this class are the infants who give a history of considerable previous feeding difficulties. They have, as a rule, been badly managed and many danger signals have been ignored. As a result of this they have a very low food tolerance and are subject to frequent digestive upsets. These infants are not very satisfactory to treat because they are usually older than infants discussed previously; are usually considerably below their weight for age; and through a disturbance of the mineral salt balance, have suffered considerable damage to their nervous systems. Many infants in this classification show evidence of spasmophilia and some of the older ones show signs of rachitis. A large percentage of them have a rather marked secondary anemia and show a pronounced susceptibility to respiratory tract infections.

In treating infants in this class a careful previous history should be obtained and each infant will have to receive special treatment in accordance with its individual needs and tolerances. It is sometimes impossible to make up the loss in weight and general development. They remind one of the delicate tomato plant which the farmer removes from the hot-house and places in the field. Should the plant get nipped by the frost, no amount of care and attention will cause it to grow and yield as it should. These infants who are retarded are very much like the tomato plant which gets nipped by the frost. It is first necessary to correct any existing digestive troubles, such as vomiting, diarrhea or loss of appetite, before feeding formulas which will cause the proper gain in weight. By feeding these infants milk, water and calcium caseinate, protein milk or equal parts of milk and water boiled 3 minutes for a few days and then feeding a cereal gruel for 1 or 2 days and then 3 or 4 more days feeding of protein milk, boiled milk and water or milk, water and calcium caseinate, the intestinal flora will be so changed that feeding milk, gruel and sugar formulas may be used and a satisfactory gain in weight obtained. After the digestive trouble is corrected, these infants can be fed whole boiled milk, lactic acid and Karo Syrup, Malt Soup Extract, wheat flour and milk or dried milk with or without the addition of sugar.

Some of the most remarkable gains in weight in these retarded infants follow the feeding of Malt Soup Extract, wheat flour and milk. As an example of the use of Malt Soup feeding, I will again recite a hypothetic case. Suppose you wished to feed an infant, 6 months old, whose birth-weight was 7½ lb., and who now weighs only 12½ lb., on Malt Soup. You would figure the number of calories required per pound body weight to be at least 60 and by multiplying this number by 12½ you find the total number of calories for each day's requirement to be 750. Two scant tablespoonsful of Malt Soup Extract weigh 1 oz. and contain 90 calories. Four level tablespoonsful of wheat flour furnish 100 calories. American pediatrists have not found it advisable to begin with the amount of Malt Soup Extract and wheat flour recommended by Kellar and begin with 1 scant tablespoonful of Malt Soup Extract and 1 level tablespoonful of wheat flour in the day's formula. By increasing both the Malt Soup Extract and the wheat flour 1 tablespoonful every 4 or 5 days, the maximum amount of 4 tablespoonsful of each is added to the formula.

If you feed 7½ oz. every 3 hours and give 6 feedings in 24 hr., 45 ounces of food will be required each day. By using 23½ oz. whole milk, 23½ oz. water, 1 scant tablespoonful of Malt Soup Extract and 1 level tablespoonful of wheat flour, you will not obtain sufficient calories to furnish the amount previously estimated to be necessary. However, by increasing the Malt Soup Extract and wheat flour up to the maximum of 4 tablespoonsful of each, you will find that the desired number of calories will be furnished. The milk would furnish 470 calories; the Malt Soup Extract 180; the wheat flour 100; or a total of 750 calories. The number of calories could readily be increased by increasing the milk and decreasing the water.

Malt Soup formulas are prepared in the

following manner: To the proper amount of cold milk is added the amount of wheat flour to be used; to the proper amount of hot water is added the amount of Malt Soup Extract to be used. The milk and flour mixture is slowly heated and when it becomes warm, add the Malt Soup Extract and water and bring slowly to a boil, stirring all the time. When the mixture comes to an active boil the food is done.

Lactic acid milk with the addition of Karo Syrup is also very satisfactory in feeding this class of infants. By this method of feeding, it is often possible to furnish a large number of calories and thus obtain a remarkable gain in weight.

If you used this method to feed the child just mentioned, it could be prepared in the following manner: Take 36 oz. of whole milk which has been previously boiled hard for 2 or 3 minutes and then rapidly cooled, and add to it 1 dram of C. P. lactic acid and 3 level tablespoonsful of Karo Syrup. Feed 6 oz. every 3 hr. and 6 feedings a day.

There is sometimes considerable difficulty in preparing this food on account of the coagulum which forms. If the Karo Syrup and the lactic acid are thoroughly mixed and a little less than a dram of the latter is used and then this mixture is slowly added to the milk while it is just about luke warm and stirred with a spoon or a glass rod, the coagulum will not be very noticeable.

The 36 ounces of milk would furnish 720 and the Karo Syrup 180 calories and the total number of calories in the 24 hr. formula would be 900.

While lactic acid milk is of the greatest benefit in feeding young, normal infants up to age 3 or 4 months, it is often very useful in feeding older infants who fail to make the proper gain in weight.

Dried whole milk with or without the addition of sugar is often very successful in feeding these infants. I have tried all the dried milks on the market and have found the Mead Johnson Company milk the best. Four level tablespoonsful of their milk equals 1 oz. and contains 149 calories. Additional calories are furnished by sugar, provided it can be tolerated.

If suitable quantities of orange juice and cod-liver oil are given each day, one need have no fear of feeding any form of heat treated milk for an indefinite period.

Vomiting has been briefly alluded to in a previous part of this paper and the methods of feeding most of the difficult feeding cases are also useful in the vomiting infant.

Dried skimmed, one-half skimmed or whole milk; thick cereal feeding; boiled skimmed milk and water, without sugar, and dextrinized gruel with the addition of evaporated milk are all useful in treating troublesome vomiting cases.

Where a sugar intolerance has developed, it is necessary to omit sugar from the formula for a time and then, by adding a small amount every few days, the tolerance can be re-established.

Acidulated milk with Karo Syrup and Malt Soup Extract, wheat flour and milk are very useful in these cases.

However, there are some infants who cannot tolerate sugar in any form and for these the feeding of cow's milk and gruel or dried whole milk in sufficient quantities to meet the infant's requirements will prove satisfactory.

I have given a greater part of my time to the discussion of methods of feeding infants who have not done well on ordinary methods of feeding, as these cases are the ones where your knowledge of infant nutrition will be of the greatest service. The proof of the pudding is the eating and the results of scientific infant feeding can be accurately measured by the growth and development of the infant.

In closing, I wish to briefly discuss the method of feeding infants during the course of the common forms of acute illness.

Feeding in cases of acute respiratory infection has to be carefully regulated. Abdominal distension, vomiting and diarrhea are very prone to occur and should be corrected by proper feeding if one expects a favorable outcome. The same is also true in cases of the exanthematous diseases, diphtheria, pyelitis and otitis media. The same principles made use of in treating difficult feeding cases can be used in the above mentioned complications. Infants affected with any of these diseases

cannot, as a rule, take the same formulas they had been taking previously.

If the infant should be too ill to nurse, feeding by gavage every 8 hr. is necessary. I believe it to be a very grave mistake to allow a sick infant to go for several days without food and water. The need for water is urgent to combat the toxemia and gavage is a safe and easy method of furnishing both food and water. Feeding in cases of gastro-intestinal disease has been alluded to previously under the discussion of difficult feeding cases.

The teaching of Finkelstein has changed the older theories regarding diarrheas. Very few of the diarrheas are infections, the majority being due to intestinal fermentation and responding very readily to protein milk or boiled milk and water with the addition of calcium caseinate.

The giving of these foods, following a fasting period of 18 to 24 hr., will correct these diarrheas in a very short time. It is often well to give castor oil before beginning the fast and during the fasting period nothing but boiled water or weak tea sweetened with saccharin is given. If there should be much vomiting, it is advisable to wash the stomach with a 1% solution of sodium bicarbonate and then introduce the castor oil through the tube.

These infants should receive alkalies, such as bicarbonate of soda, sodium citrate and milk of magnesia, during the diarrheal period to combat any tendency to an acidosis.

One occasionally sees a case of true intestinal infectious disease of the streptococcus or dysenteric type with blood and mucus in the stools and accompanied by considerable tenesmus. These cases are treated by protein milk by some, but better results are obtained by omitting all forms of milk from the diet and feeding thick cereal gruels, broth and orange-albumin until the infection has been controlled and then gradually adding small quantities of boiled, evaporated or dried milk to each feeding. The increase in the quantity of milk must be made very gradually or a relapse is likely to occur.

Summary

(1) Premature infants and full-time infants considerably below the normal weight tolerate raw cow's milk formulas poorly.

(2) Tolerance can be built up in these infants by starting with weak, low fat formulas, using skimmed milk and water boiled 3 minutes with the addition of sugar; powdered skim milk with or without the addition of sugar; thick cereal feeding or dextrinized gruel and evaporated milk. By increasing these formulas every few days, one can soon reach a formula which will furnish the number of calories to meet the infant's requirements and one the infant can digest.

(3) It is always of distinct advantage to figure the infant's requirements in calories and then furnish these calories in such form as the infant can digest.

(4) Small increases in the strength of the food made at short intervals are far better than larger increases made at longer intervals.

(5) Don't expect an infant who is vomiting or has a diarrhea to gain in weight; correct the vomiting and diarrhea and furnish sufficient calories to meet the infant's requirements and a satisfactory gain in weight will be obtained.

(6) Protein milk and boiled milk and water with the addition of calcium caseinate are the best foods for correcting a fermentative diarrhea.

(7) Never attempt to feed an acutely ill infant raw milk; particularly if abdominal distension, diarrhea or vomiting is a complication of such an illness.

(8) An infant too ill to nurse should never be allowed to go without food and water. Always resort to gavage and in some cases, give normal salt solution by hypodermoclysis or into the peritoneal cavity.

(9) Severe cases of athrepsia often require blood transfusion as a life-saving measure.

(10) Don't feed milk in any form to a case of acute infectious intestinal disease.

In Memoriam

OGDEN, William E., of Rutherford, Bergen County, died of heart disease on December 12, at the age of 60 years. Born in Ontario, Canada, Dr. Ogden acquired his medical degree at Trinity College, Toronto, and later settled in practice in New Jersey. He is survived by one daughter, Mrs. Hazel Bates, of Rutherford.

CARNOCHAN, John McDowell, of Princeton, died at his residence on the morning of December 12, after a prolonged period of illness.

Born in 1873, Dr. Carnochan graduated from Princeton University in 1896 and received his medical degree from the Medical and Chirurgical College of Philadelphia in 1899. After a period of service in the Moses Taylor Hospital and at the Hillside Home in Scranton, Penna., he started practicing in Princeton as assistant to the late Dr. J. W. Wicoff. In 1908 he was appointed physician to the University and continued to serve on the staff of the Princeton University Infirmary until the time of his death.

Dr. Carnochan was personal physician to Woodrow Wilson when he was President of Princeton University and continued an intimate association with the President after his removal from Princeton to Washington. He also played a prominent part in the civic affairs of the town of Princeton, serving 2 terms on the Board of Council, and he was a member of the Cap and Gown Club of Princeton University and a member of the Masonic fraternity.

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.
Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE:
CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.
EDITOR:
HENRY O. REIK, M.D., F.A.C.S., Apartment 22 Grammercy Court, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

THE PRESIDENT'S NEW YEAR GREETINGS

To have the opportunity of sending New Year's greetings to the members of the State Society through our Journal is an honor that I welcome as President for the year 1929.

It has been particularly inspiring to me during the past 6 months, as I have endeavored to present an outline of our work for the year to various county societies, to discover almost every county program with the predominating number of speakers from the local, or an adjoining society. Undoubtedly, we shall at intervals continue to invite noted men of our profession from other states to address our meetings but our county societies sometimes hide brilliant talent and allow it to rust from disuse. What finer contribution can we make to the state than that of developing men of our profession through scholarly competition? Invitations to lectures and clinics from several counties show that my worthy predecessor's advice along this line has been followed.

If you will scan the list of Standing Committees, on the Journal's last page, you will be encouraged by knowledge of what may be effected in 1929 with such eminent leadership. Through intelligent coöperation of subcommittees in the component county societies even more may be accomplished.

I am greatly impressed by the earnestness with which the Antidiphtheria Campaign is being conducted. The committee has been ably supported by local Boards of Health and Education, and also various civic organizations. To further the object of this committee let us stress the importance of immunizing the "pre-school child", beginning with those children who will come into school next year. It is also important that we encourage the Schick testing of those children who have had toxin-antitoxin administered.

We find an awakened interest in "Periodic Health Examinations". It is beginning to win deserved merit among New Jersey doctors. The "Death Control" lecture delivered by our able Field Secretary, Mrs. E. C. Taneyhill, has stimulated interest in this work. County societies might well recommend to the various clubs a similar program and speakers could be secured through our Executive Secretary. In this manner the public can be convinced that no medical man, group, nor organization is so well qualified to make periodic health examinations as the family physician. The various forms of "Group Insurance" offered by our state society command your consideration and support. The committees having this work in charge have been untiring in their efforts and are to be commended for the success they have attained.

There is no more important work for our society, as a whole, than the contribution each physician can make to the Welfare Committee's legislative activities, through personal in-

fluence with our lawmakers at this time. We not only should be alert to our responsibility to the public and our profession, but also we might well delegate to our Woman's Auxiliary authority to coöperate with us in this undertaking. The New Jersey Medical Society is indeed honored in having its Woman's Auxiliary 100% organized. On investigation, this group of women will be found leaders of every progressive movement in their respective communities.

The Social Session, as sponsored by our auxiliary, is becoming the means through which the laity is finding us a forceful unit, and through which our families will find a congenial social outlet which will benefit us in more ways than we have reckoned on. But beyond this we can count on this group for intelligent coöperation always in the work delegated to them by their county societies.

We have been greatly perturbed by the illness of our Executive Secretary, Dr. Henry O. Reik. Although the curtailment of his many activities will be keenly felt throughout the state, we can still rely on his counsel and direction, and the continuation of his editorial work will assure us of the maintenance of the Journal's high standard.

May the New Year bring health, happiness and success to each one of you and success to our New Jersey Medical Society through the continued coöperation of its members.

Ephraim R. Mulford.

IN RETROSPECT

The state society may well feel proud of its accomplishments during the year just closed. In few other years has there been an equal amount of work performed, and it is probably safe to say that never before has the society shown greater vigor. As an organized machine it is running smoothly and efficiently, and at no previous period in its history has there been more wide-spread interest among individual members. These facts are evidenced in many ways: by increased attendance at the last Annual Meeting—much "the largest ever"; by the high average percentage of attendance at most county society meetings; by the increasing number of "original articles" offered for publication; by the manifest growth of interest in medico-social problems, and active participation in public welfare movements; by the excellent and very effective public educational campaign conducted by radio, through the press, and in association with lay organizations of various kinds. It was a busy year for everybody and a profitable year for both the laity and the profession in general. "Bread cast upon the waters" is usually returned an hundredfold, and the health protection efforts of organized medicine will be no exception to that rule.

One very patent evidence of the society's advance in 1928 is observable in the Journal. Compare volumes 20 and 25, to get a striking picture of the great changes within a period of 5 years; compare any 2 successive volumes during those 5 years and note the steadily progressive development, in the Journal itself and in character of the work reported. From a volume of approximately 400 pages, it has grown to one of 800; and, incidentally, the page size has been materially increased, so that the growth has considerably more than doubled the original. The number of scientific contributions published annually has exactly doubled in these 5 years; and we have the feeling that the quality of material now submitted for publication is showing an improvement.

Looking over the "Index", published this time along with the December Journal by the way, one is impressed by several other striking features of progress: 5 symposiums, each embodying an interesting résumé of the subject under consideration; 2 valuable Tristate Conference reports—one a very thorough discussion of the problem of expert medical testimony; and, a tremendous growth in numbers and improvement in character of county society reports. The departments of "Economics" and "Esthetics" are worthy of com-

mendation for having presented our readers with so many topics of vital interest to professional welfare; and, we are impelled to again thank Dr. Bradshaw for continuance of his fine series of monthly dissertations on "Ethics".

Altogether, we think the society and its Journal are both making notable progress.

NEW YEAR PLANS

Satisfaction with what has been accomplished in the past year should encourage us, upon advent of the new one, to make even better plans for the future and to strive with ever increasing devotion to improve our organization. As the oldest state medical society in the nation, it is in some measure incumbent upon us to maintain a position among the leaders. Other states have grown beyond New Jersey in population and in wealth; so, absolute leadership in some lines is no longer expected of nor possible to our society. Many of the essential things are, however, just as applicable to the smaller as to the larger states, and just as possible of performance by the former; and, new ideas are not necessarily limited in origin to the masses. Promotion of periodic health examinations, completion of a state campaign for abolition of diphtheria, education of our own citizens; these necessary and desirable tasks are the same in New Jersey as elsewhere, and there is no reason why our society may not make a record for good work in each line.

Let us vow to further these projects during this year, and let us also endeavor to advance the preventive medicine program in new ways. Let us plan, in the first place, to strengthen our own organization; by increasing membership to the limit of eligibles in each county; by aiding the woman's auxiliaries in each county to a coincident enrollment of available members; by regular attendance at all county and state meetings; by participation in the scientific programs and the economic procedures; by prompt performance of all duties imposed by election to office or appointment on committees; in brief, by doing whatever we can to further the interests of organized medicine.

All members desirous of "turning over a new leaf" this month might do so forthwith by determining to read each number of the Journal immediately upon its receipt. This periodical is the main line of communication between individual members and the officers and committees of the organization. Only by reading it can you keep informed, and promptly and authoritatively informed, concerning passing events; only through according it the same treatment you should give to a letter or telegram can you properly respond to a duty call from your officials. Especially is this a duty during the time when the legislature is in session and when personal aid may be required to meet some emergency. We *wonder* how many members have complied with the request made in the last paragraph of the last editorial published in the December Journal. We *know* how many have reported taking action but we will not publish the number at present; it is not a sufficiently large percentage of our membership to justify any boasting. If you are at all interested in your own professional economic welfare, you will not leave this matter to "George"; unless you think it is going to be a pleasure to sit back and grouch because one or more of the cults has "put something over". The political influence of individual members of this society is going to be needed during the next few months. Have you planned to do your part? Have you so far done it? Make it a part of your New Year plans to do your full share of organization work.

COUNTY SOCIETY DEVELOPMENT

At a recent meeting of the Board of Trustees, provision was made for holding a special meeting of the secretaries and reporters of all the component county medical societies. In 1926. President Donahoe invited these county officers to a luncheon on the

first day of the Annual Meeting, and thus inaugurated for the Medical Society of New Jersey the plan of an annual conference on matters of special import to branches of the state and national organization. Presidents Green and Conaway, in 1927 and 1928, successively followed this precedent of personally entertaining the county society representatives and of encouraging them in their work. All three conferences were successful in that they established a feeling of brotherhood among men having similar interests and afforded opportunity to consider some of the problems bearing upon the relationship between state and county societies. The luncheon hour proved, however, too short an allotment of time to permit proper discussion of any question presented, and every one came to feel that special arrangements should be made for meetings at which experiences could be exchanged and problems might be worked out with deliberation; it being the sentiment of those attending the luncheons that the conference idea was an excellent one and that its fuller development held promise of great benefits to the profession.

Considering how best to promote the plan, the Trustees felt that the President should not be taxed, as it were, to entertain the group, and that providing for a special meeting of the secretaries during the annual convention would deprive the participants of the privilege of attending the scientific sessions. So, the Board decided to authorize a special meeting to be held during the winter, devoting an entire day to it if desired, and to appropriate from the state society funds a sum of money sufficient to provide the luncheon. This is all in line with what has been going on with organizations in the most progressive states, and it augurs well for advancement of all professional interests.

Arrangements are now being made to hold this conference of secretaries and reporters at Trenton some time this month. Topics of general interest to all the county societies will be presented for discussion and it is hoped that much good will ultimately result from an interchange of ideas and experiences.

PREPARATION FOR ANNUAL MEETING

The Board of Trustees decided, also, to continue the Section Meetings—Pediatrics, and Ophthalmology, Otology and Rhinolaryngology—so successfully initiated last year and, following the Board's meeting, the Committee on Scientific Program and the Committee on Arrangements held a joint session to consider plans for the convention of 1929. The date has been set—June 12 to 15—and the place determined as Haddon Hall, Atlantic City. The first day will be devoted solely to work of the House of Delegates; this plan having proved so satisfactory last year. There will be 4 general scientific sessions on Thursday and Friday; the same number of sessions in each of the special sections; and Saturday morning will be held for clinics at the Atlantic City Hospital. Entertainments will be arranged for the evening hours. The Woman's Auxiliary will meet at Hotel Chalfonte, and will have its own special program for each day; joining forces with their "boy friends" in the social features in the evenings.

Make another resolution right now; i.e., that you will be present at the Annual Meeting in June.

STATE SOCIETY PROGRAM

The Program Committee is actively at work developing plans for the next annual meeting. Any member desiring to offer a paper for the scientific programs of the general meeting or either of the sections should submit his title immediately for consideration. Dr. Linn Emerson (Metropolitan Building, Orange, N. J.), Chairman of the Section on Eye, Ear, Nose and Throat, makes the special request that members interested in that section shall at once communicate with him, if wishing to present a paper, without waiting for specific personal invitation.

Collateral Medical Reading

WHY WE BEHAVE LIKE HUMAN BEINGS

George A. Dorsey, Ph. D., LL. D.
Formerly Associate Professor of Anthropology, University of Chicago

The purpose of this column being, as defined in an editorial in the November Journal, to direct attention to the medical reading matter of the intelligent layman, a review of Dorsey's book becomes imperative despite the fact that it can scarcely be classed a new book. First published in October, 1925, it had gone through 31 reprintings before the end of December, 1926; what edition is now on the market we do not know but it continues apparently to be a "best seller" and it is certain that few books of a scientific or semiscientific character have ever enjoyed so great a popularity. This is, however, a deserved popularity and we hope the book will hold its place among the leaders until everybody has had an opportunity to read and digest the great mass of interesting and important facts it contains. We feel inclined to say that no one can afford not to read this story of human beings, told in a manner that is simply fascinating.

Our review will consist mainly in the quotation of paragraphs or sentences taken from various chapters and strung together with some attention to sequence; intending thus to present a fair idea of what the book contains rather than express any opinions of our own concerning the subject matter. And so, we start with the very first paragraph of the preface, which in itself tells a good deal about what one may expect to find in the following context.

"Human beings are the most interesting objects on earth, and to know themselves and get along with one another is their most important business. That business drags because they do not know where they come from, how they get here, what they bring with them, what they do with it, and what they could do if they stopped quarreling among themselves and used their brains to solve their common problems. It will speed up when the raw materials of human nature and the possibilities of intelligent behavior are more generally understood. The facts for such an understanding are known, but they belong to several sciences and are scattered through many libraries. To pick them out, put them in order, and make them tell a complete and up-to-date story that can be held in one hand and read without a dictionary is the object of *Why We Behave Like Human Beings.*"

The first 2 chapters constitute a compendium on the life cycle of the human race, and the evolution of the earth and the life that is on it, and the following culled sentences indicate the interesting style in which these problems are dealt with:

"Our immediate ancestors were four-handed and two-footed. But when baby gets on the floor, it pulls with its fore and pushes with its hind limbs; just as we once crawled up out of water on to dry land. * * * Palmists rarely read the pad at the outer edge of our palm—or know that we have one like it on the sole of our foot; both protect deep-lying muscles from injury in walking. The palm pad has its own palmar muscle in 1 man out of every 10. Today, it is as atavistic as the pad itself; we gave up walking on our hands about 2,000,000 years ago. * * * What does it all mean, this astounding range of variation, on which I have barely touched? There they are, by the thousands, by unnumbered thousands. Shall we say that they lie, that our *levator coccygis* never lifted a tail, that our *curvator coccygis* never curved one, that our *attollen auriculam* never lifted an ear? Or shall we say that we are walking museums of comparative anatomy and try to find out whence we came and whither we are going? This is certain: there is no fixed, standardized, perfect, or biologically ideal human body; there are no 2 human bodies quite alike. Each one of us reeks with evidence that our ancestors were not the two-handed and two-footed creatures we are now; that they had no talking muscles; that they could not back up their talk with a speaking countenance; and that they could not balance their heads on their spines. * * * Man got ahead because he could grasp an idea, could talk it over with his fellow-men and think up new ideas. The amazing thing is not that he became human, but that he can be so inhuman in so many ways. If the hand that rocks the cradle is the hand that rules the world, it will not hurt good government if the hand knows what it rocks; or what the hand came from; or that the first cradle was in a tree-top. The human brain and throat made civilization posisble, but it was the hand that built the home, kindled the fire, and made human culture. There are simpler and surer feet than man's, but none has carried such priceless freight or been shod with the wings of a Perseus. The human hand should build a monument to the human foot, for the foot freed the hand."

Biology and its relation to some of the

pressing political and economic problems of today are set forth in "words of one syllable" and these are sometimes given an amusing turn which tends to fix them permanently in the mind of the reader. "All that has been acquired or altered in the organization of individuals during their lives is preserved by generation and transmitted to new individuals which proceed from those which have undergone change," said Lamarc, a great French naturalist, who died nearly 100 years ago, blind, in poverty, a social outcast—for telling the truth as he saw it. He coined the word, *biology;* it thrives. Biologists have driven a hundred daggers into his theory of evoultion through the inheritance of acquired characters; the theory is as alive as ever. * * * Man's arm, bat's wing, horse's leg, whale's flipper and turtle's paddle, all evolved from the fin of a fish. These are typical *adaptations;* they are characters which have been acquired; whether *inherited* or not they are transmitted. * * * Can we control our own evolution? Do we want to? To what end? In which direction? Presumably we could; and this is as far as eugenics has any standing in a court of science. What are we to breed at? What is the new race to go in for? Stature, tow hair, blue eyes, 8 fingers, toothless, 1 toe, fecundity, mental precocity? The list of heritable traits is indefinite. "Marry dissimilars" is probably good eugenic advice if we are not bent on handing down our own personal traits—but most people are satisfied with their traits. At any rate, the sex impulse itself generally chooses its mate and that impulse is not primarily concerned in offspring. * * * What shall we do with the Attic Greeks? Raise their *quota,* or exclude them because they do not look like the Harvard graduate who fathers an average of only three-fourths of a son, and the Vassar graduate who mothers only one-half of a daughter? * * * Could Galton have predicted Lincoln? Could Ellis Island? Can Ellis Island spot the Jukes from the Altmans, or have the faintest idea when it holds up a Steinmetz or an Edward Bok? * * * Is civilization now breeding a *pure* Andy Gump type—no teeth, no lower jaw? Cigarettes may save the lower lip, and chewing gum may save enough of the lower jaw to support a chewing gum. But a full and sound set of teeth these days is about as primitive as is a perforated olecranon fossa of the humerus."

The third chapter discusses the processes of life and the germs of disease. The functions of the different organs of the body are described, first as to physiologic action and then in relation to pathologic changes, on to the termination of life in death.

"One good defect deserves another. Defects lead to other defects. Many bodies are kept so busy repairing leaks in the lungs, or picking cinders out of the fuel, or keeping foreigners out of the blood, that they have no time for the main business of life; giving their owner a life-long joy ride. * * * Puberty is a period, but a kind of sex life begins at birth. For many, real sexual maturity never comes. So it is with adults; some are more adult in mind at 15 than others at 35; some hurry through to senility before body and mind have become fully adult. Normal old age is physiologic; it is no more a disease than adolescence, and should be as agreeable. In pathologic old age, senility is premature and is a disease. The seat of the disease may be anywhere or may be due to bacterial infection. In *natural* death, we die by inches. But while there is only one path by which we may enter the world, as Pearl points out in his remarkable book on death, there are many that lead to the river Styx. Death does not strike at random, but in an orderly way; and there are many ways of dying. We die when an essential part of our body breaks down. * * * We hand public health as we do government, over to a power which we expect thereafter to run of its own accord. But neither ever gets very far ahead of the load it is supposed to carry. Meanwhile, for every one that knows what to eat and why, there are a hundred who eat for their tongue's sake and let it go at that, not knowing that a double chin may be a misdemeanor or that arteries or nerves may be as easily choked in fat as a cat with butter. Many use their body as a clothes horse and are only concerned with the parts that show. * * * Man is highly complex protoplasm. This mass of protoplasm functions, lives, because these parts work together for a common end. They are marvelously balanced. Upset the balance —disease. If the balance cannot be restored, the machine is broken. A few minor parts may be restored; a few may be dispensed with. The machine breaks when a vital part breaks; and it never runs again."

Chapters follow on psychology and on the mechanism of adjustment; chapters full of interesting observations.

"With the realization that some individuals have no mind at all, individual behavior began to be a problem. With the realization that the outstanding fact of evolution is individual variation, and that the significant fact of the *genus Homo* is individual behavior, and that stereotyped behavior in an individual is a sign of abnormality and if vicious lands him in a padded cell, the old science of mind-gazing lost its pep and the

gazers began to try to find out what happens to human beings and why. And that is a real problem, from the complete solution of which we are yet miles and years. * * * Man both makes and outlaws his own laws. He cuts off his nose to spite his face; dies to live and makes a martyr of himself in the name of custom; scarifies his face and body, deforms his head, waist and feet, and wears sackcloth and ashes, patent leather shoes, and plug hats in the name of fashion; and consigns to hell his infants' souls in the name of the Saviour whom he implores to save his own soul. * * * Real individuality in life begins with the cerebrum. The less cerebrum, the less power to learn. The greater the cerebrum, the greater the capacity to learn from experience. Of all the structures man has inherited, he knows least about the one which made human culture possible; and because he has used it least, human civilization has become the senseless thing that it is."

We might go on indefinitely, quoting interesting passages as striking as the above, but we trust those given will be sufficient to arouse your curiosity and lead you to read the entire book; a task, the accomplishment of which, will be well rewarded.

Medical Ethics

THE MORALS OF MEDICINE

Harry R. Trick, M.D., F.A.C.S.,
Buffalo, N. Y.

(An Abstract of Dr. Trick's Inaugural Address as President of the Medical Society of New York State)

The measure of morals in medicine is the Golden Rule.

This rule should be applied in all our relations to our patients, to our fellow practitioners and to our lay co-workers.

Physicians have become burdened with such a variety of activities that they have little or no time for meditation. This is regrettable because we may become so confused by the myriads of little things that we may forget the bigger things—the moral aspects of our work.

Many of the time-consuming activities are due to natural increase in the refinements of the practice of medicine and to increasing demands of the public for instruction regarding public health and preventive medicine. Social, civic, and secular affairs have little or no relation to the clinical practice of medicine, but the sum total of these demands upon our time is staggering.

There have been so many advances made in the practice of medicine during the past 2 generations, and their application to the needs of the general public has required so much administrative work, that physicians have long since been unable to keep pace with all of the work that is imposed upon them. As a result, increasing amounts of this work have been taken over by volunteer lay organizations and other philanthropic groups. This is quite right and proper. These groups can devote themselves to the task without interruption, while the imperative demands of clinical medicine make it almost impossible for the practicing physician to assume anything more than a position for rendering advice and general direction. But this position of the physician in the work is becoming untenable.

Physicians, by research and clinical experience, have established the laws of health, and should insist on directing their application in every public health movement. It is a moral duty for the medical profession to maintain this attitude toward public health work because of its training and experience.

The needs of Industry have created a type of practice that was entirely unknown a generation ago. We have not yet found a satisfactory solution of this problem; but the prospects for success have become much brighter since we have conferred with the various interested parties and have applied *the golden rule* all around.

Various activities and changes have produced a maze of economic problems more or less related to the physicians, such as workman's compensation, contract practice, group clinics, public health work, and division of fees. Attempt by the medical profession to solve these problems has required so much time, and has attained such prominence, that the medical profession has been accused of becoming mercenary. Certain individuals may have succumbed to the lure of the dollar, but the profession as a whole is sound and will continue to exemplify the best traditions of the profession. To permit the spread of an impression of commercialism would result in destruction of the very thing upon which the faith of the public in the medical profession rests.

The permanence of any structure is determined by the character of its foundation.

The integrity or soundness of any structure is determined by the character of its component parts.

The practice of medicine is an established structure of the body politic.

The foundation of the practice of medicine is idealism.

Idealism is an essential characteristic of the physician.

The idealism of medicine accounts for the high regard in which medicine has been held by the general public during all the years. It attracts more young people to the work than all other reasons combined; and therein lies a significant thought since youth is the idealistic time of life. The youthful dreams of yesterday become the realities of today. The practice of medicine is the exemplar of youth's conception of beneficent service.

We must cultivate idealism for our own sake as well as for the sake of our successors, since it permeates the entire structure of medicine. It is the soul of medicine. Any variation from the highest impersonal motives by any member of the medical profession excites distrust and a loss of prestige for the whole profession in the minds of those we serve.

Idealism is an intangible force, but it is the major influence of our lives.

The general public is deeply interested in the work of the physician, not because of curiosity, nor because of a hope of personal profit; but because of a desire to learn the truth, and because of an innate desire to express an idealism that is common to all of us. This eager interest of the public is fostered by the medical profession, but it is at once a source of gratification and dismay. It is gratifying to the medical profession to have so much willingness and power to help at hand, but the dismay seems to be caused by the inability of the lay mind to understand the rules of conduct that govern the medical profession.

The Practice of Medicine is a thing apart. "It is an ART, not a science; it is a CALLING, not a trade; it is a PROFESSION, not a business." Therefore, those who practice are subject to rules of conduct rather different from those governing other activities. If we should appropriate their rules we would become something different from what we are, and what we have always been, and would lose one of our most valued possessions.

The most priceless heritage of the medical profession is a record of self-effacing service to mankind. We cannot sacrifice that inheritance for any mess of pottage.

The martyrs in medicine are immortal. We are proud of the fact that service similar to theirs is being given today, but we realize that all progress in medicine is the net result of much study, research, and experience, often by many different persons, and we are filled with a humility that prevents us from acclaiming ourselves as individuals. That is why we are impatient with the pretensions of the quack and are doubtful of the sincerity and worth of the advertiser. It is immoral and sinful to lay claim to professional skill that our training and experience do not justify. It is almost, if not quite, criminal, thus to jeopardize human life.

Who would presume to appraise the services of those earnest workers whose efforts have resulted in the absolute control of so many diseases? It is not humanly possible, and any attempt to do so would impugn the motives of those unselfish souls who have devoted so much time, and effort, and even life itself, for the general good without thought of material gain.

In some few instances a grateful government or a generous foundation has voted an honorarium, but that was an afterthought and was not the incentive for the work. That is why a discovery in medicine is not patented by an individual. It is not in keeping with the altruism of medicine. All of us enjoy the benefits of every medical discovery as soon as it has been proved.

If the medical profession should become subsidized or commercialized, it would lose incentive and influence. Occasionally an unscrupulous person gets into the profession who fattens on the misfortunes of others. Such persons are the pirates of medicine. They seduce the thoughtless members of the profession with specious arguments regarding the commercial side of medicine. There is no such thing. The professional services of the physician are not susceptible to the interpretations of the rules of conduct of the merchant. A physician is either true to the trust reposed in him by the patient, or he becomes a most despicable bandit as he filches money from the helpless.

The trafficking in the sick, commonly called "division of fees", or "splitting fees", is the canker gnawing at our vitals. The sin lies not in the "division", but in the clandestine character of the transaction. It is a pre-arranged plan whereby somebody secures an exorbitant fee. The very fact that part, or all, of the transaction is clandestine, is proof enough that those who enter into it realize that it is immoral and so they strive to keep it under cover. In some states the splitting of fees is illegal.

All of our transactions with our patients should be susceptible of itemization. If our

patient is satisfied with the various items as presented to him, the division of the fee loses its implication.

Since it is a question of morals, it should be explained frequently to the medical students, and perhaps used as a test question for entrance to the medical school, with the idea that if we cannot make the old sinner see the error of his ways, and mend them, we may replace him later with a young physician of higher ideals.

If the division of fees, as generally understood and practiced, should ever receive the sanction of organized medicine, our doom would be sealed, since it would mean the loss of the respect of the public, and would be fatal to the idealism which makes us what we are. It would justify state medicine. Every right-thinking man values his reputation above money, and therefore we should bend every effort to eradicate this evil which threatens the fair name of medicine and imperils the reputation of all physicians.

Medical Economics

HOW THE FAMILY DOCTOR CAN INCREASE HIS USEFULNESS AND HIS INCOME

J. H. Hiden, M.D.,
Pungoteague, Va.

(We are reproducing herewith the essay that won first prize in a contest offered through Southern Medicine and Surgery. The second and third prize winners were also very interesting discussions of means for improving the status of the family doctor, and we shall probably publish them in future issues of the Journal; copying all 3 from the Journal of the Tennessee State Medical Association, February, 1928.)

As a family physician for over twenty-five years this subject has been constantly before my mind, and in an effort to solve this problem I have thought the subject over many, many times, and viewed it from what appears every possible angle. As a result of my labors, when conditions seemed almost hopelessly dark, I am grateful to find that my efforts have not been in vain; for I have every reason to believe that my usefulness has increased, and I know my annual income from my practice has increased within the last 5 years 50%. With this experience before me I am ready to give to my struggling brother some simple views and opinions that helped me in solving this problem in my own case.

Few things in the schools of science have undergone more numerous and varied changes within the last 2 decades than has the practice of medicine. These changes are seen more or less in every department of medicine, and they naturally breed a sort of restlessness and oftentimes an uneasiness that can scarcely be concealed. In none of these departments do we find more of this uneasiness than in that of the family physician, for he is the one in the profession who seems to be losing ground in influence and in remuneration for his services. In an effort to somewhat analyze this situation, and so far as possible to suggest measures to check this deplorable tendency, it may be well to glance at the position of the family physician in his struggle for influence with the public. He sees not only the old enemies of the profession in the various forms of the charlatan to contend with, but also the most advanced innovations among his professional brethren—all, more or less, apparently infringing mercilessly upon his field of work. He sees many of his former patients seeking the specialists; obstetric patients are deserting him for aid in maternity wards at some popular hospital; tuberculous patients are seeking sanatoriums; nervous patients are calling for the neurologist; and so on, through the various departments of medicine. Added to all this he sees extensive programs of preventive medicine, organized by the Boards of Health, and backed by legislation, making inroads upon his field of practice, and "pressing him to the wall" on every side. Group practice also appears and gives him additional trouble, and by impressive, extensive examinations often impress patients with a sense of thoroughness, while suggesting to their minds automatically a lack of this thoroughness by their former family physician. Do we wonder that the often slighted family doctor should sometimes become worried and perplexed in contemplating the ultimate outcome of this course of proceedings?

In presenting the above picture I wish to state that it is not as fair a view of the situation as it often apppears, and when this picture does appear as unmistakably real, the fault is not to any considerable degree in our professional brethren, nor entirely in ourselves. Indeed, the present attitude of the public toward the family physician is the natural outcome of our present age—the unavoidable evolution of our social conditions. Moreover, the so-called innovations that appear to infringe upon us are mostly the progressive changes of our state of civilization, and should be seen and studied in that light. To fret and

struggle against such changes would not only be a useless task, but would subject us to continuous embarrassment and, in many cases, even ridicule. To accept them cheerfully as the natural processes of our progressive age will place us more favorably before the public, and will also support us in maintaining our self-respect.

Assuming now that we are able to "orient" ourselves in our new environment, let us see if we can't find what may be called the compensatory advantages in the new era.

The so-called infringements of state medical instruction, when seen in the full light, carry with them a source of unanticipated blessings to many of us. For instance, the general spread of information in regard to preventive medicine furnishes a compensation worthy of the closest attention. Such courses of instruction are teaching the public in every direction the value of periodic examinations even among people who are apparently well. Moreover, under such educational influences thousands of these examinations are now being conducted by family physicians as well as by others in the profession. Indeed, the family physician will doubtless get his full share of this work in the near future. Now is the time to take full advantage of this new situation. Again, this growing demand for medical examinations is more helpful to the general practitioner than he often realizes, for it extends in directions which a few years ago were almost inaccessible. I refer to gynecologic examinations. These were usually occasional in general practice, and the family physician was often expected to give so-called "uterine tonics", or "ovarian sedatives" without even making a pelvic examination. Now this custom of extreme "modesty" in women is fast disappearing, and almost any family physician has ample opportunity for gynecologic examinations, if he chooses to do this work. Moreover, these frequent examinations not only furnish ample clinic material for more accuracy in diagnosis and greater efficiency in treatment, but they often reveal morbid conditions that would otherwise escape notice; namely, such conditions as uterine displacements, catarrhal conditions, endometritis, uterine polyps, uterine fibroids and myomas, cervical tears, erosions, pus tubes, hematomas, hematoceles, vesico-vaginal fistulas, pelvic adhesions, simple congestions, etc. Here is unmistakably a great field for the reasonably well-informed general practitioner, if he does not surrender it all to the gynecologist or pelvic surgeon. In making this latter statement I am not advocating radical abdominal and pelvic surgery for the family physician; but why should he not train himself to treat successfully such conditions as simple pelvic congestions, uterine cervical catarrhs, cervical tears, cervical erosions, uterine retroversions of the simpler types, endometritis, uterine polyps, cervical atresia, symptoms of menorrhagia, simple form of amenorrhea, cervical ulcers, the distressing symptoms of vaginitis, cervical abscesses, etc.? Judging, not only from my general observations, but also from a wide experience with such troubles, I should say that all these morbid conditions are easily within the range of the general practitioner, and they represent a resourceful field for great usefulness and revenue.

Now what has been said in the school of gynecology can also be said in a measure in other lines of work. The chief thing to be emphasized is for the family physician to abolish all conceptions of imaginary wrongs, if he has any, open his eyes to the progressive changes in the practice of medicine—see "the signs of the times" and adjust himself to meet the changing conditions and the demands of our present day. To do this he must be thoroughly interested in his work; let the public see that he considers his work as a sacred trust; coöperate with the best physicians and surgeons of his community, if possible; but never concede to any of the other departments of medicine too large a proportion of his professional work, especially the parts that properly belong to his own field. I emphasize this latter remark because I feel keenly that this is too often done. Just here allow me to ask with all kindness and sympathy for the family physician, if we avoid much of our professional work in order to be relieved of the tension of responsibility, and send to others what we should know how to treat skilfully ourselves, who is responsible for the final result of this course in the eyes of the public? In other words, if we make ourselves little more than medical agents for special hospitals, sanatoriums, etc., we are sure to be seen by the public in that light.

Another point that we should consider in making ourselves more useful is to show ourselves to be men of alertness in the profession; for it is practically a conceded fact that there is no thriving place for the sluggard in the practice of medicine. I am ready to admit it is not well to be "keyed up" to a high pitch of continuous nervous tension, but we should always be interested in our work, and be alert to grasp evidence in the claims of improvements. To this end many of our foremost physicians devote periodically a portion of their time to attending special clinics in an effort to keep more abreast of the times. This

course is becoming quite popular, and it is often profitable. It might indeed be even more profitable in any given case if the family physician would first study carefully the needs of the community in which he resides, and also his own deficiencies in meeting these needs, and then apply himself accordingly. In other words, to attend foreign clinics with a sort of medical curiosity, but with no definite object in view other than outside appearances, is not likely to be a very profitable business. It is certainly not in harmony with the best judgment and talent.

Further, to meet the present demands for usefulness the family physician should develop his office practice. To this end he should have a well-fitted office, if possible, containing, as a rule, not less than 4 rooms, and these should be supplied with the essential equipments of a progressive man—namely, a library, a good supply of suitable instruments, lights, and modern conveniences for examination and treatment. Everything should be kept spotlessly clean and in order, and examinations should be conducted with dignity and refinement, especially so when dealing with the opposite sex. We can hardly express this too strongly, if we expect the highest degree of success, and careful attention to the appearance of the office and general equipment, as well as strict observation to cleanliness, can hardly be too much emphasized. Carelessness and indifference along this line are dearly paid for by the physician when he little dreams of it.

Assuming now that we are all convinced that a good office practice is most desirable, if not even essential, to the highest grade of success, the physician should soon select some special lines of needful and popular work in which he is especially interested, if possible, and endeavor to make himself an expert in these lines. Such a course is likely to keep up his interest and make the practice of medicine a real pleasure instead of a dreary course of hardships and disappointments. When this latter condition is reached the family physician will soon be losing ground indeed.

Again, as the physician's office practice grows, 1 or 2 practical nurses may add greatly to office work in keeping the rooms clean, office furniture and instruments in order, in preparing patients among women and children for examinations, and keeping them satisfied while waiting for their time. These nurses may not necessarily be graduate or trained nurses, but only good sensible women who are interested in the wrok and are willing to learn what you consider essential for them to know (I have 2 such women to assist me in my work, and find them very helpful indeed).

Now a word in regard to the infringements of the specialists—our attitude toward these should be mostly that of coöperation rather than that of antagonism. Remember if we as family physicians are well equipped for our work, they need our assistance in many cases just as truly as we need theirs. Just here I recall 2 most perplexing cases of choroiditis that were treated for weeks by noted oculists with little or no improvement, that cleared up beautifully only when these eminent specialists referred the cases back to the family physician and coöperated with him in the treatments. In these cases the work of the family physician was fully recognized by these distinguished specialists. Such examples are becoming more and more numerous, and the services of a well-informed family physician are often desired by many of our most competent specialists. This being the case, a generous coöperation between this class of physicians is not only desirable, but even essential for greater usefulness and success to us all. Moreover, when this mutual confidence in each other's ability and character is observed we will find in many cases the able, honorable specialist in reality the best friend in the profession to the family physician.

But again, while we are looking for the disturbing factors of our work—the real obstacles to our medical progress and usefulness—let us not lose sight of our real enemies in dealing with the public. I refer to the imposters—the miserable quacks, the loathsome scavengers who feed upon the false impressions of the neurotic masses of a credulous public. Here the chiropractor appears upon the platform in his glittering apparel. It is obvious to us all that he must be dealt with; but I should say, not with public expressions of chronic disgust or spasmodic contempt; but by cool, quiet, organized measures, and by legislation. If by such measures and pressure we can induce our legislators to compel these impostors to stand our regular State Board medical examinations, as we had to do before being allowed to practice medicine, we can practically eliminate this grave evil. Let us be alert in forming and pressing this plan, not only for our own good, but also for the public's interest.

Further, to consider again our situation with the public, and also with our professional competitors, let us open our eyes to the fact that most of our grievances with these are either imaginary or are the natural results of our social conditions. In view of this, let us wake up to a realization that a new order of

things is upon us, and that we should fall in line with the nobler advances of preventive medicine, coöperate with our Boards of Health in their grand and noble work, show ourselves to be useful, patriotic citizens, maintain our self-respect by observing the highest principles of honor and integrity—cultivate a sympathy for our fellowmen, and learn, so far as possible, to live in the happiness of others rather than in the selfish indulgences of our own appetites and carnal desires. With the observance of these suggestions there is little or no doubt about our ability to increase our usefulness, but the question of increasing our income may be yet a problem for many of us. To succeed in this latter phase of our subject may depend upon many factors or conditions in each case, such as locality, environment, the physician's judgment, his habits of business, etc. To increase our income as a whole this business side of the question should be taken up in our local societies and there discussed freely among ourselves with a most friendly, coöperative spirit. The regulation of fees could be discussed and agreed upon, and the advisability of adopting some business methods of sending out to our patients statements at regular intervals, reminding them of their indebtedness before the bills get too large for easy collection. In these meetings of our local societies the special problems that confront the physicians of each community should be taken up and studied by those who are especially involved. In all these discussions and plans, however, we should avoid, so far as possible, every appearance of organized effort against the interests of the public. Indeed, a mutual interest should be our object; for we have, even in the fact of our financial worries, no organized "union" or "combine", thank God!

Finally, in closing this article, I am sorry I am unable to give a more definite plan for us all to pursue, involving specific directions for the general increase of our annual income. Outside of elimination of the great army of quacks by legislation, and a similar check upon the patented medicine distribution, I don't see how this can be done; for there is no royal road in our profession to universal success, and any effort to find one, in my opinion, is the offspring of as dreamy a conception as that found among the misguided searchers for the land of El Dorado. Moreover, it is obvious that a course that leads to success for one man with a certain degree of talent and proficiency would be likely (in the same environment) to be a course of failure to another, with very different attainments, and so, in the last analysis, we are compelled to consider the thought of qualification and adaptability. Returning again to our central thought —shall we consider ourselves as deserving a place in the ranks of the survival of the fittest? If so, let us remember that, properly speaking, "the survival of the fittest" does not mean that popular conception: "The survival of those few who represent the highest state of development"; but rather the survival of those who, possessing ability, can make for themselves the most skilfull, accurate adjustments to the irresistible tide in the changing conditions of our state of civilization. This latter observation, after all, is the surest way, in any individual case to increase the family physician's usefulness and income.

Esthetics

HOMO BOOBUS COMES TO THE BAT

(Reprinted from "The Kalends", Williams and Wilkins Co., Publishers)

The genial and oft too frankly-spoken Walt Whitman loved to dwell upon the virtues of what he called the "average" man—the man in the street. If multiplicity is an indication of divine love, it must be conceded that Lincoln was correct, for the common man, the average man, the man whom Mencken labels as the "boob", represents by far the largest sector of any given nationality.

This common man, this "boob", has been told so often that he is an ass or a dolt, that there is such an enormous gap between him and an intellectual, that unfortunately he inclines to believe it. He becomes humble in the presence of modern "criticism", and at times hesitates even to venture an opinion. And in so acting almost proves himself as great an ass as he is reputed to be.

Let the average man—you and I—read a highly-praised book, see a much-discussed play, or hear a pronunciamento of an admitted highbrow, all of them damnably stupid, and what does the average man say? Does he say they *are* damnably stupid? or does he scratch his poll and say, "I guess it's beyond me, I can't understand it. I must be a lowbrow"—and then blushes.

There are few men or women, or their works, as great as their admirers assert them to be. Let it not be forgotten that when critics have extolled *all* the virtues, and explained away *all* the shortcomings, that the faults remain the same and the virtues increase not at all. The common man, with his collective, native, common horse sense, is just as

competent a judge of the inherent and lasting worth of a man or a measure as is the highest brow extant, especially if that brow represents no opinion other than its own.

The man in the street is seemingly an ass not because he lacks common sense, but largely because he lacks the *savior faire* and the aplomb which enables an otherwise asinine highbrow to put over much that is unwise and foolish. The common man does himself too little honor; let him learn to express himself in an articulate manner and much that is now considered the height of culture soon would resolve itself into what it really is—humbuggery, pure and simple.

In Lighter Vein

Household Hint Needed

A modern young lady, when presented with a nest of gold thimbles, exclaimed: "My Gawd, what do you serve in these?"

Falling Down on the Job

In 24 hours, it is said, 1 silkworm will produce material for a woman's complete outfit. Silkworms, we fear, are getting lazier and lazier.—Springfield Union.

Scrambled Surgery

She is reported convalescing rapidly after a recent appendix operation for tonsils and adenoids.—Federalsburg (Md.) paper.

Raising the Ante

Apple-growers now urge every one to eat 2 apples a day. Probably the theory is that the more doctors you keep away the better.—Schenectady Union Star.

Identified

First Farmer—"I've got a freak on my farm. It's a two-legged calf."

Second Farmer—"I know. He came over to call on my daughter last night."—London Times-Globe.

Due Notice

The farm problem, as reported by a western Texas paper:

"Positively no more baptizing in my pasture. Twice in the last week my gates have been left open by Christian people, and I can't afford to chase cattle over three counties just to save a few sinners."

Fellow Feeling

A Junction City young woman who collects antiques recently acquired a haircloth chair, says The Union, and now she knows why her grandmother wore six petticoats.—Kansas City Star.

Not a Royal Reception

"Were you presented at court when you were in England?"

"Yes, for driving on the wrong side of the street."

Observations from the Lighthouse

RESPIRATORY INFECTIONS IN CHILDHOOD

An original article in the November Journal directed attention to the annually recurring epidemics of respiratory diseases among children, discussed the possibilities of prevention, the tendency toward relapse shown by these affections, and the rather disheartening results from any therapeutic measures. As bearing upon some of the points raised by the author and by those who discussed his paper when read before the Pediatric Section of the State Medical Society, we submit herewith abstracts of 2 interesting studies recently published.

C. C. McLean (Arch. Pediat., 45:571, Oct., 1928), presents a preliminary report on his observations of so-called influenza infections among children, and says:

"Medical writers do not place the importance on influenza which it deserves. In fact, they seem to avoid the subject. What has been written in recent years has dealt principally with hospital cases and has had the tendency to further confuse rather than to enlighten the profession.

In the cases to be reported it was attempted to divide so-called influenza into as many types as possible, to see if certain types precede each other in rotation, or if one type was more prevalent at certain seasons of the year, or if one type would confer immunity against that particular type. An effort was made to show the number of cases which had definite recurrences. No case was considered as a recurrence unless the patient had been free of all symptoms for at least 20 days.

The reported observations on 361 patients with influenza infections were upon private patients living in Birmingham, Alabama. No cases were included in this series but those with which we had been in intimate contact for 6 months or longer. There were definite recurrences in 119, or 32.8% of children of all ages. The average number of days between recurrences was 45.

In attempting to classify influenza into types, with the exception of the gastro-intestinal and the asthmatic bronchitis types, we were more or less disappointed, due to the intermingling of the various types.

The following are some of the more important deductions that were made: Influenza is a distinct seasonal disease, as much so as measles or whooping cough. The disease begins in October, the number of cases increases in November, there is a further increase in December and the peak apparently is reached during the last 2 weeks in January and the first 2 weeks in February. In March, the number of cases is considerably reduced. In April, the disease is practically over.

One attack of influenza during a season definitely predisposes relapses, recurrences and re-infections, but severe repeated attacks seem to confer a certain amount of immunity. The infections, when they occur during the next season, are of a milder type.

In our experience, pneumonia is not as common as is generally thought. Of 361 patients with influenza only 7, or 1.9%, developed this condition.

Our records show 6 families where 2 or more children had an influenza infection on the same date, and in from 4 to 6 weeks these children,

on the same day, had recurring attacks of gastro-intestinal influenza.

Rest in bed is required in all cases. The temperatures are taken at 4-hour intervals and records kept. No child is allowed out of bed until the temperature has reached normal and has remained normal for at least 48 hours. Children convalescing from influenza should not be allowed to return to school until they have been free of fever for at least a week. For the next month, they should be kept at home when the weather is bad. The patients with the chest and nasopharyngeal involvements, do better and are more comfortable with warm, moist air. Free use is made of the croup kettle and ventilation is obtained by opening windows in adjoining rooms.

The medical treatment is largely symptomatic and it is questionable that it does much good."

Immunization

The modern practice of pediatrics is becoming more and more a practice of prophylaxis and prevention of disease (Editorial, Wisconsin M. J., 27:415, Sept., 1928). "The pediatrist who accepts the new-born infant as his ward must assume the obligation not only of treating his patient during any future illness but of protecting this ward so far as possible against disease. While the problem of preventing the transmission of infectious diseases is a state province, immunization of the individual is a function of the private physician, at least so far as concerns his patient. The private physician or pediatrist can complete immunization in the first year of life when this procedure is most effective and least disagreeable. Vaccination against variola at birth or as soon thereafter as the infant's condition allows will usually confer protection for 5 to 7 years and makes subsequent vaccinations minor procedures. Diphtheria toxin-antitoxin or toxoid (anatoxin) given between 9 and 12 months is relatively harmless and offers protection for at least 50% of the infants for life. Repeated inoculation will increase this percentage. Typhoid fever remains a disease demanding serious consideration. In view of the Montreal epidemic, so recent as March, 1927, and transmitted through "pasteurized" milk, typhoid vaccination in the second year of life is typhiod vaccination in the second year of life is judicious prophylaxis. Measles protection may be assured when the occasion arises if convalescent or animal immune serum is given early after exposure. With proper technic, an active, life immunity may be produced by allowing a mild, modified form of the disease to develop. We may expect soon to have available protection against scarlatina, and probably against tuberculosis. It is the duty of the family physician or of the pediatrist in charge of the patient to keep informed as to the recent developments in prophylaxis that he may offer his patients protection as soon as this may be safely produced. That this obligation rests upon the private physician cannot be questioned. He is the first to see the infant and he is in closest contact with the family. It is for him to decide when the patient shall be immunized and how each procedure is to be completed. If, and when, foreign protein or horse serum is to be introduced, the physician to the individual child should have a record of this procedure and possible sensitization for future reference. Unless the private physician will realize and assume his responsibilities in modern preventive medicine, he may expect public health agencies, that now offer not only immunization but medical service and therapeutics as well, to carry him on to state medicine."

PROGRESS IN PSYCHIATRY IN THE LAST 25 YEARS

The change in our attitude toward mental disease is reviewed by A. H. Harrington (Rhode Island Med. Jour., 11:123, Aug., 1928) in a comprehensive manner. Among other things noted are:

"I think it may be truthfully said that psychiatry is the only branch of medicine today that deals with total reactions, and that this conception is of comparatively recent growth.

In the lowest forms of life the reactions are all physico-chemical and there is possible only an extremely limited range of adjustment to the environment, such as absorbing energy from the sun's rays or elements from the soil or water for the continuance of life. When we come to higher forms of life with some differentiation in organs, we find the organs integrated and working together by means of a vegetative nervous system and with still greater adjusting mechanisms to the environment. Going up the scale, we come at last to an organism with the first evidence of a psyche, the latter being the result of an evolutionary and biologic integration. With each rising step, and with each integration, we find a corresponding capacity for adjustment to, and for making use of, the environment, and, at the same time, with an increasing complexity in reactions between the individual and the environment.

The average human being today comes into the world with an endowment, which is the result of at least, it is believed, 500,000 years of evolutional development of the human race with a psyche of the same period of time bearing every trace of untold millions of trial and error. With him have come from the very first the instincts of the race; they have never fundamentally changed. Society, however, has constantly been growing more and more complex, calling in every age for greater and greater sublimations, calling upon the individual to give up more and more of himself for the good of society. We finally have the individual reacting at the psychologic level of his evolutionary development, as a psychophysical integration.

Now at the psychologic level between the individual and his environment, meaning largely society, occur the adjustments, adequate or inadequate, which constitute either the success or failure of the individual at this level. Failure, or in other words mal-adjustment, may apply to the child, whatever his age, or to the adult, whatever his age. These mal-adjustments may mean a disappointed individual, a warped personality, a neurotic, a psychopathic individual, a psychotic individual, a delinquent, a criminal, a vagrant, any one of the homeless habitually unemployed. Today a broad psychiatry deals with all of these in the field of prevention, adjustment and treatment.

In the first place, the psychiatrist, whether engaged in an institution or out of it, is in a position to establish contacts with the community through mental hygiene societies, or other organizations where they exist today, and to engage in the educational efforts so necessary

before measures of a concrete nature can be entered upon. Already in very many localities educational work for the public is bringing to notice the value of mental health and the great wastage from mental disease and this is making progress in creating an attitude of mind on the part of the public, willing and even eager to accept the help of the psychiatrist in social difficulties and mal-adjustments. To consult a psychiatrist today is not to any such extent as formerly an implication of "insanity".

Practical ways of accomplishing active work are seen today in the development of clinics for out-patients in connection with hospitals for mental diseases, and also in connection with general hospitals in numerous instances. This development, however, although its great usefulness has been demonstrated in a sufficient number of instances, justifies a far wider adoption of such methods. The number of such clinics is thus far too few.

The establishment of mental health clinics in a community is of inestimable value, because the psychiatrist has the opportunity of detecting the very earliest factors as to the social relationships, economic conditions, and environmental causes of strained relationships in home, or employment and otherwise, which may be the forerunners of a clearly defined mental deviation, which at the moment may be intelligently treated. The progress in psychiatry in such instances is seen in that no psychiatrist, nor even any physician, would probably have had any contact with the patient previous to such community work.

Non-medical workers, for instance, persons connected with charity organizations and with the church, are being taught, thanks to the many lectures, group talks, and to the literature which is being circulated, that certain behavior observed in the home, the school and other relationships, spells a mal-adjustment, and are learning to refer such instances to the psychiatrist. These problems to be understood must see the individual as a whole with all his antecedents, physical and mental, heredity, experiences, education, and their bearing upon the shaping of his personality in a pathologic direction.

There is an abundant literature which has been issued within the past few years, which shows that in behavior cases in children there are exhibited the same mental mechanisms as exist in the adult suffering with psychoneurotic tendencies or psychoses. Psychiatry must, therefore, take into account all the social factors related to any individual case. The individual is surrounded by an environment which constantly grows more complex as his activities in life gradually take on a widening range. If failure comes it may occur in the child in adolescence or at any subsequent period.

Now we have a new worker, namely, the trained psychiatric social service worker, who has taken the place of older systems, such as would be represented by the often unsystematiezd methods of philanthropy in which a mistaken sympathy often existed where there should have been some constructive plan.

This worker, with the background of a liberal education, having at least some academic knowledge of the social sciences, must needs be equipped through her special course of training with a comprehensive knowledge of clinical forms of psychiatry and their mechanisms, as Herman M. Adler says, on the social side with the practices which are taught in regard to housing, education, economics and other matters, such as recreation. She must absorb in a given community a definite knowledge of all agencies which exist in that community for certain needs of the patient which are sure to arise, not only on his individual account but also in regard to all of his interests, his family and his economic relation.

The development of the psychiatric social worker was a necessary sequence of social psychiatry, because there was a definite and specialized form of social service work to be done. On this account there was required one specially equipped for the gathering of data and submitting to analysis the social problems of the patient to the end that the psychiatrist may obtain the only kind of assistance that will be of value to him in determining the diagnosis and treatment of the patient. The *raison d'etre* for the psychiatric social worker is that the psychiatrist centers his attention upon the patient, while the psychiatric social worker traverses the whole circle of the patient's environment. The psychiatric social worker, in a wider sense, becomes 'a specialist associated with the psychiatrist, and professionally subordinate to him'.

The psychology which has been the outcome of Freud's method shows how thin the partition is which separates the healthy from the neurotic, the neurotic from the psychotic. The mental mechanisms which have been evolved from modern psychology have shown that the cleavage between mental health and mental disease is not so sharp. In sleep, even, the personality may be changed into a primitive semblance; the unfulfilled wish may surge to the fore. Our evidence of progress is that through modern psychology we have a better understanding of the so-called insane than ever before. The conduct of the psychotic has ceased to be so senseless to our minds, the "word salad" has a meaning, if we can only find it.

It does not seem that the technic of psychoanalysis can be of value in the essential psychoses, but from what the literature reveals we may conclude that in hysteria, in anxiety states and in compulsion neuroses, this therapy may be of value in some cases. Not only the school of Freud, but that of Adler and Jung, it is generally conceded, are contributing something to psychiatry.

The practical application of psychiatry to problems which arise in connection with criminal laws is attracting the attention of jurists as it never has before. The question of "insanity as a defense for crime" has furnished a subject for contention between the medical and legal professions since the middle of the last century. Attempts have been made in England to draw the medical and legal professions nearer together, but have not succeeded, so far as material change in the laws is concerned. In this country we are fortunately making progress. For the legal profession and the psychiatrists, as represented by the American Bar Association, the National Crime Commission, and the International Prison Congress are in agreement that procedure should provide for the study of the individual offender by properly qualified and impartial experts coöperating with the courts.

At a National Conference called by that National Crime Commission and held in Washing-

tion, D. C., in November of last year, one whole session was given up to the general subject of "Substitution of Scientific Mental Examination of Prisoners for Present System of Paid Expert Testimony", in which the legal and medical points of view were discussed. While there are differences of opinion, they seem to rest on the part of the legal profession, on the legal aspects of the law in respect to the conception of responsibility. However, the conception of the psychiatrist, that it is not the crime but the individual criminal that should be the factor in determining what should be done with him, is apparently gaining ground. That is, the psychiatric view-point concerning these offenders is beginning to be sought by the courts. How to obtain such accurate and technical knowledge as a court and jury need in criminal cases has been the stumbling block. It will never be solved by the summoning of paid and partisan experts, nor by the hypothetic question which either side can erect to suit itself. It is a question of procedure as to how reliable and nonpartisan medical evidence can be introduced.

Massachusetts has taken a long step forward in the direction of simplifying this problem. In 1921 a statute was passed by the Massachusetts Legislature, known as the "Briggs Law", which provided that when a person is indicted by a grand jury for a capital offense, or if known to have been indicted for any other offense more than once, or previously convicted of a felony, and is indicted or bound over for trial, the Clerk of the Court or Trial Justice notifies the Department of Mental Disease. This department has an organization of which a Director for Examination of Prisoners is the head. This division under the Department of Mental Diseases operates throughout the whole state. Every person accused of crime or offenses as mentioned is given an examination as to his mental condition, then a report is filed with the court as to the results of the examination by the psychiatrists, which is accessible to the court at the trial.

By this procedure it is possible for every justice of a court to be put in possession of an opinion, furnished by qualified psychiatrists, as to the mental condition, sane or insane, of every prisoner such as has been indicated, who comes before him. The law is working, I am informed by officials, in a highly satisfactory manner.

We are beginning to recognize that disturbances of the internal secretions may have a bearing upon mental disorders. Robertson states, "If the future holds for us a great therapeutic discovery in the domain of mental disease, it will probably be found in a knowledge and control of internal secretions."

Under the head of "Individualization" we may treat in a brief way of a number of conditions and therapeutic measures, which in hospitals for mental diseases, with their great numbers of patients, are bringing patients *individually* into closer touch with definite agencies for their care, treatment and rehabilitation. During the past 25 years these great institutions have been growing more highly organized. In hospitals which are striving to meet the requirements of the individual patient, and where there is being furnished, on as adequate a scale as can be obtained, the means to meet such requirements, there is an ideal. In working toward this ideal, always providing for the maximum of coöperation, the organization is being divided into units as to its numerous activities. As a result, medical staffs of hospitals for the mentally-ill are being increased numerically. There are units of medical service comprising as heads the medical director, the clinical director, the clinical psychiatrist, the psychologist, the psychotherapist, the pathologist, the serologist. Then comes the physical therapy department, the occupational therapy department, the social service department, the out-patient department, and there are others. As a result, there has come about a more critical study of each patient, physically, mentally and socially, than was ever the case before. Indications for special treatment, whether it has to do with purely medical measures or means for the patients' re-adjustment, whether within or without the hospital, are more positively realized.

Occupational therapy is a medical measure and should never lose its place as such in the organization of the hospital. A gain has been made in this branch in that there is a demand for a highly intelligent and highly specialized person to be at the head of the department but subordinate to the physician.

While on this subject of "Individualism" I wish to speak of *music* as a valuable therapeutic aid in hospitals for the mentally sick. I am not speaking of music as a means of entertainment, though that has its place, but I am claiming for music an important place in the therapeutic scheme. Its value is derived from having the patients, themselves, take part in producing or engaging in some form of musical expression. The best and most adaptable form is singing *ensemble*.

Under proper direction they will learn to sing with the greatest amount of expression. The therapeutic value is derived on the physical side from the increased intake of oxygen, the muscular movements, and the stimulation of the circulation. On the mental side there is the training of the attention and the coördination of each individual with the entire group. The selections to be sung should be of a high standard as to character and sentiment. Suffice it to say that experience has shown that a systematic program of musical therapy has undoubted value. This is little realized in general. To be carried out, the musical department should be in charge of a musical director, who is a musician, and who can bring to the work a psychologic appreciation of the intellectual, the ethical and the esthetic value of music.

Lay Mirror Reflections

METROPOLITAN LIFE INSURANCE FIGURES

(New York Times, Sunday, November 4, 1928)

General health conditions in the United States and Canada have been more than satisfactory during the first 9 months of 1928, having been excelled only in 1927 and 1921 in the same period, according to the statistical bulletin of the Metropolitan Life Insurance Company. This deduction is based on the mortality record of more than 18,500,000 industrial policy holders of the company, who compose more than 1/7 of the com-

bined populations of the 2 countries. In past years the mortality record of this group has invarlably been regarded as a reliable index of conditions as a whole.

The death rate among approximately 16,000,000 white insured persons this year was 8.3 per 1000 lives. This closely approaches the minimum figures of 8.2, recorded for the first 9 months of 1927 and 1921. The rate for approximately 2,500,000 persons of other races was 15.5 per 1000, one of the most favorable mortality figures ever recorded for this large group.

Records of Alcoholism

Alcoholism has caused 434 deaths in this 9-month period, as compared with 427 in the same time a year ago. Deaths from cirrhosis of the liver, most cases of which were of alcoholic origin, increased from 865 in 1927 to 884 in 1928. Wood and denatured alcohol poisonings were responsible for 22 deaths, the identical number which occurred during the first 9 months of 1927.

Since January 1, 1922, a period of 6 years and 9 months, alcoholism, exclusive of wood and denatured alcohol poisoning, has caused the deaths of 3332 industrial policy holders. Of these, 3298 deaths occurred in the United States and 34 in Canada. Although the death rate from alcoholism is lower than in the years prior to 1918, the company reports that it is nevertheless true that during the 8 years of prohibition in the United States the alcoholism death rate has been rising appreciably, whereas in Canada, during the same years, it has always been so small as to be negligible and has not increased.

BAD TEETH ALWAYS

(New York Times, November 7, 1928)

In the romances which have put the hearts of humankind in a glow the simple aborigine is usually represented as moral, noble, brave and sound in wind, limb and teeth. While the pragmatically minded pioneers unanimously reported that the beautiful Indian maid of legend was rarely met with, the romancers continued to represent her as a fawn-footed being of dusky moonlight beauty and with teeth that shone like the delicate inner covering of a shell.

Science has been rudely shattering fancies, among them the one that aborigines are always perfect physical specimens, but it is only of late that the distressing condition of their teeth has been brought out. El Palacio, a little periodical devoted to early American pre-history, gives some definite data about the dental situation among the Indians of New Mexico about 1500 B. C. They suffered the same as we do; their teeth were subject to the same distresses. They even had pyorrhea, and probably 4 out of 5 was the proportion.

El Palacio says that the reason for this "is hard to determine because their food was meat and grains, such as we use today", yet huge cavities developed in unworn teeth. But the worst thing about the tooth troubles of these original New Mexicans is that they had no dentists worthy of the name. With not even a subway ad to warn them what was happening, the plight of these early people was much sadder than our own.

Communications

CAUSES AND TREATMENT OF RHEUMATISM

(A letter from J. M. Kitchin, M.D., East Orange)

There does not seem to be any general acceptation as to the nature of the world wide troubles to which the term "rheumatism" is more or less applied. If any one has formulated any definite satisfactory ideas in this connection, I have not had such perceptions brought to my attention. As the outcome of having had such rheumatic troubles more or less constantly during 40 years of my life, I have acquired some definite conclusions in this connection which may be of some general interest.

It seems clear that there may be a plurality of causes. The most generally potent cause is, I believe, defective oxidation of alimentary products that have been absorbed into the general system, and which if not completely oxidized, cause irritating acidity of the blood. The next most irritating cause I consider to be excess gastric acid production due to consumption of foods difficult to digest such as excess of meats or foods improperly prepared or insufficiently comminuted. Excess sweets, especially cane-sugar, and converted excess starch may be causative factors. Lack of general muscular exercise, with consequent insufficient breathing of air conveying oxygen; defective elimination of metabolic excretions through the intestines and skin; oxygen-uniting alcoholic beverages; traumatism of the joints as well as of the muscular tissues, especially of the back; normal necessary wear and tear in use of many of the joints; chilling of various parts of the body surfaces; plethora of even-balanced alimentary nutrients may be partly or combinedly causative. Heart structural changes may be active in producing rheumatic processes.

A rheumatic trouble once started may be inducive to further like troubles; for example, I sprained my left knee on an icy sidewalk 20 years ago, and that has been a local cause of inadequate exercise ever since; and that knee has been an excellent agent for indicating such foods as may have to do with rheumatic twinges. I strained my dorsal muscles 40 years ago, from which I suffered lumbago for 15 years, until I restricted my diet to oatmeal and milk gruel and secured adequate exercise on the bicycle relieving strain of my dorsal muscles by leaning on the handle-bar of the wheel.

The treatment for rheumatism consists largely in abstinence from foods that cause trouble. It is surprising how small an amount of food is needed to nourish the body if vigorous muscular exercise is not an economic requirement. Good milk with a slight sprinkling of cereal granules, and cereal cortex for roughage purposes, is all that is necessary to keep the patient comfortable and even actively alive. Of course, there is a large variation in appropriate foods and their methods of preparation, but beneficent moderate starvation is necessary. The old Scotch saw of "fearing God and keeping the bowels open", is applicable. Appropriate clothing, baths and remedial alkaline waters are helpful. But, until the world learns how to breed

a race with more intelligence, and to feed that race with greater knowledge, it seems clear that humanity will have to suffer more or less from rheumatic troubles. I admit the possibility of special infections; but so far as my own experience goes, I think they are of minor importance etiologically.

SPECIAL NOTE FROM WELFARE COMMITTEE

In the published proceedings of the October meeting of the State Society's Welfare Committee appeared a notation calling for publication in the Journal of the Nebraska Law relating to liens of physicians, nurses and hospitals upon awards made to the victims of accidental injury. We have just obtained a copy of that law and present it herewith:

AMERICAN MEDICAL ASSOCIATION

Bureau of Legal Medicine and Legislation

LIENS OF PHYSICIANS, NURSES, AND HOSPITALS FOR SERVICES RENDERED IN THE TREAMENT OF INJURIES FOR WHICH THE PATIENT RECEIVES COMPENSATION

Laws of Nebraska, 1927. Chapter 162.

An Act relating to Liens; providing that physicians, nurses, and hospitals shall be entitled to liens for their services in certain cases; and to repeal sections 3234 and 3235, Compiled Statutes of Nebraska for 1922.

Be it Enacted by the People of the State of Nebraska:

Section 1. PHYSICIAN'S LIEN.—Whenever any person shall employ a physician, nurse or hospital to perform professional service or services of any nature, in the treatment of or in connection with an injury and such injured person shall claim damage from the party causing the injury, such physician, nurse or hospital, as the cause may be, shall have a lien upon any sum awarded the injured person in judgment or obtained by settlement or compromise on the amount due for the reasonable value of services necessarily performed: Provided, that no such lien shall be valid against anyone coming under the Workmen's Compensation Act. In order to prosecute such lien, it shall be necessary for such physician, nurse or hospital to serve a written notice upon the person or corporation from whom damages are claimed that such physician, nurse or hospital claims a lien for such services, and stating therein the amount due and the nature of such services: Provided, however, that whenever an action is pending in court for the recovery of such damages, it shall be sufficient to file the notice of such lien in the pending action.

Section 2. ACT REPEALED.—That sections 3234 and 3235, Compiled Statutes of Nebraska for 1922 are hereby repealed.

Approved April 20, 1927.

Note. Sections 3234 and 3235 of the Compiled Statutes of Nebraska of 1922, repealed by the above act, were based on an act passed in 1915 (Acts of Nebraska, 1915, page 469). The act of 1915, however, related exclusively to physicians and was less specific as to the manner in which such liens might be enforced.

Current Events

TRISTATE MEDICAL CONFERENCE

The meeting was called to order at Hotel Chelsea, Atlantic City, N. J., at 10:30 a. m., by Dr. Ephraim R. Mulford, President of the Medical Society of New Jersey. Those present were:

From New York—Harry R. Trick, James Newell Van Der Veer, Joseph S. Lawrence, Frank Overton and James E. Sadlier.

From Pennsylvania—Thomas G. Simonton, Arthur C. Morgan, William T. Sharpless, Walter F. Donaldson and Frank C. Hammond.

From New Jersey—Ephraim R. Mulford, J. B. Morrison, Walt P. Conaway and Henry O. Reik.

Dr. Mulford: It is a great pleasure for the New Jersey Society to entertain you today and I am sure that the splendid program which has been prepared will be of benefit to all of us. It was a great pleasure to have you here last year and the material furnished us at that time was most delightful and has been very helpful to the 3 state societies.

It being reported that Dr. Overton will not arrive until a later train, we will request Dr. Lawrence to open the program.

Dr. Joseph S. Lawrence (Albany): There is nothing more fundamental to our organizations than the welfare of the county society; it is that upon which we are built. The county society has probably been neglected, or at least it has not received its full share of attention and development, during these 100 or more years that we have been in existence. If the following paper just calls our attention to the subject, perhaps at another time we can spend a whole day in discussing how we can make the county society a more effective organization.

A Brief Review of a County Medical Society's Opportunities

Joseph S. Lawrence, M.D.

In the states represented here today, the county medical society is the unit of organization. In each state there are county societies older than the state society. In New York, the state society took its name—The Medical Society of the State of New York—at the time of its organization in 1807, from the original medical society of the state organized in New York City in 1794. As the county societies grew in number, and the need for a state organization developed, the legislature was memorialized by a group of the more powerful county societies for legal authority to create a state society. The powerful and strategic position occupied by the county society in the past has frequently been reviewed, and there is no need of my directing your attention to it today, except to recall that the strength of the state organization, in more ways than one, depends upon the health and vigor of its component county societies.

The county society should be intimately related to the state society in all of its intrastate activities. The county societies of our 3 states enjoy almost absolute autonomy and, therefore, it is very important that the state society should develop and maintain such intimate relationship with every one of its component county societies that when the county society happens to engage

itself in a situation that extends beyond its jurisdiction, or is more complex and involved than it can solve, with its limited personnel and organization, it will feel free and, in a measure, duty bound to call upon the state society for assistance.

A great factor of strength in the state societies today, as in bygone days, is manifested in the enthusiasm and interest of the delegates elected by the county societies to represent them at the state meetings. The county societies are each year feeling more keenly the need of support from the state organization. These demands for the time may be expressed in legislative assistance, educational facilities, and legal advice and protection against suits for malpractice, but another field, that of the relation of the medical profession of a county to other agencies engaged in public health work, is just developing in New York State.

The opportunities of a county society may, for this paper, be classified under the following heads: scientific advancement; social advantages; public relations; and internal relations. Probably the fundamental principle which stimulated physicians to organize was the desire to advance themselves scientifically, by discussing among themselves the problems which they encountered; and the papers and discussions presented before the county societies 100 years ago were of that character. Today the physician is no longer limited, in his search for scientific advancement, to county society programs; he can find discussions upon almost any subject in a variety of professional and nonprofessional journals. But the program makers do not seem to realize this, for the principal change in the average county society program in these hundred years is that most of the papers are prepared and read by physicians foreign to that society.

Scientific programs could be improved by being interspersed with clinics, and by careful selection of subjects, so that only those that have a wide interest for the membership will find a place on the program. Medical schools and hospitals should be called upon to assist nearby county societies with their scientific programs. The medical school should not be simply a center for undergraduate work, but ought to take leadership in preparing for postgraduate work and keeping the physicians in its neighborhood in touch with the latest scientific advancements in the practice of medicine and surgery. The aim of the scientific meeting should be to improve the clinical facilities of the members of the society, not only to give them lengthy and complicated accounts of unusual conditions or findings, but to discuss methods and conditions involved in the common routine life of the physician, with the object of making available to every physician in the society such advancements or new ideas as may be discovered by scientific workers and announced in the medical journals.

The county society seemingly has lost the great research interest that the early societies possessed. There are some problems whose solution, in my opinion, could be greatly advanced by the contribution of scientific data from county medical societies which they alone possess; for instance, reduction of the maternal mortality rate. If the physicians of every county would report at their regular monthly meeting, or at a special meeting called for that purpose, the degree of prenatal care, the conditions under which delivery was made, and the postnatal coöperation secured in every case cared for during that month, the discussions that naturally would arise from these reports would, within a year, crystallize certain facts which at the present time are simply a matter of conjecture. Similar fields for this character of research will be found in the domain of the common cold and of heart disease. Research of this type would need no involved financing; about the only expense that need be attached would be the employment of a stenographer to take down the discussions and to transcribe the reports.

Hospitals located in the county should all expect to assist the county society with its scientific programs, not alone by reporting unusual cases, but by having its staff members report upon the cases most commonly received at the hospital, particularly as to the difficulties that attend prompt diagnosis of such cases, dangers of delay in diagnosis and entrance to the hospital, complications that may interfere, making prompt action difficult, and facts concerning convalescence.

Surgeons have for years been monopolizing county society scientific programs, certainly not entirely of their own initiative, because physicians have wanted to know about surgery in order that they may know when to seek its aid, but too many of their papers have dealt with the unusual case or the elaborate description of surgical technic. It is true that such a subject is often very attractive to the physician, but it is questionable whether he profits more from that sort of paper than he would from a review of the conditions attendant upon the common cases that come to the surgeon in the hospital. The average physician, particularly in the rural districts, is not too familiar with hospital practice and hospital problems. Especially is this true if he has been in practice 15 or more years. Some of the most interesting meetings that I have attended, where discussion was entered into very generally by everybody present, had as a central theme some subject such as "Headache" or "Surgical Tuberculosis".

Every society should have as one of its aims the promotion of sociability among its members. Every physician who is eligible to join the county society should be persuaded to do so, and an opportunity should be given at meetings for the members to chat socially among themselves. Those who are naturally socially inclined should make it their business to see that the spirit of good fellowship includes every physician present. The rural practitioner, in spite of the fact that among his clientele he may be known as a "jolly good fellow", is frequently very retiring and shy at a meeting of the county society. In pre-volsteadian days, at the annual meeting, this shyness was not so noticeable after the meal had started, but today, unfortunately, it not infrequently happens that those present, even at the annual banquet, are divided into small groups and, in some instances, individuals are seen to be left entirely out of the conversations. These men profit little from meetings of the county society and are not particularly enthusiastic about attending.

We all know how advantageous it is that physicians whose practices interlock, should know each other thoroughly and have confidence in one another's ability; and the mutual benefit that those who devote their practice entirely to surgery, and the general practitioner, derive from an intimate acquaintance with one another.

The physician's training and practice encourage individualism, which, when well established, is recognized both by himself and his friends as a social handicap in his community activities. Frequent social opportunities in the county society

will aid greatly in dispelling individualism. I sometimes wonder whether this should not be the county society's principal activity today.

The county society is not only organized for the scientific advancement and social betterment of its members, but it also has a field in the economic relations attendant upon the practice of medicine. The county society should have accurate information as to the resources, objectives and personnel of every agency operating in the county whose activities include the care of the sick or the prevention of disease. It should develop acquaintance with the leaders and organizers of these various agencies, and offer assistance in developing that part of their programs which has to do with the practice of medicine. Every community deserves of its resident licensed practitioners, protection against propaganda or activities pretending to promote or protect the public health, which they cannot endorse as beneficial. Not a few times have I been amazed, when speaking before a county society of an agency engaged in public health work in that county, to find that the members knew little or nothing about the agency although it may have been working there for years. Individually, they all had had some experience with it, but the matter was never brought up formally in the society and although some of them had, from observation, reasons to feel that the agency's activities were not entirely beneficial to the community, they had not reported the matter to the society, nor was there among them any depth of feeling of responsibility to the community. Such neglect is not worthy of the society and there are still communities that believe a county society would not be guilty of it. The public believes that the agency must be doing good work, because it has heard no opposition nor unfavorable criticism from the physicians. Some communities, however, have grown independent of the physicians and do not know that a county society exists. Such condition need not prevail and would not if the physicians would, through their organization, take an active part in community affairs. A society is not justified in maintaining what it considers a dignified position and expect its advice to be sought by the community every time that it is needed. The society should, of itself, consider community problems and offer its advice after due deliberation.

Recently a very active county society in our state, after having informed itself definitely that the city, through the discharge of waste material, was polluting certain waters used by the community for bathing, decided to discuss the matter at a regular meeting. They secured as the principal speaker for that evening the highest authority on water pollution that they could obtain, and invited the mayor and other prominent city officials to attend the meeting. The discussion was both scientific and practical and so convincing that the newspapers announced, a few days later, that the city would immediately take steps to discontinue such pollution, and one editorial spoke very highly and gratefully of the interest shown by the physicians.

The county society should take cognizance of the public health activities that are promoted by the State Department of Health. Wherever they involve medical work, it should be done by the local physicians rather than by state employees imported for the occasion, not simply because when the work is done by state employees the physician loses the revenue, but satisfactory diagnosis and follow-up work cannot be accomplished in one visit; they require more or less extended observation and direction. Such public health activities as vaccination against smallpox, diphtheria and typhoid fever, should receive public approval from the county societies, and the physicians should let it be known through their organizations that they are willing and ready to do the medical part of the work. If they do, it will be thoroughly appreciated by the public. While I am writing this, an editorial has come to my desk commenting upon a society's activity in protecting that county against diphtheria. It speaks very gratefully of the fact that in the last 20 months there has been, in that community of over 100,000 people, but I death from diphtheria. The editor took occasion to censure the people for not having coöperated more wholeheartedly with the physicians. Another editor spoke of the indifference of the public as "criminal indifference".

Every county society, by maintaining its integrity and exercising wisdom in its decisions, can determine the character of medical practice that shall prevail in that county.

This paper would be incomplete if I did not call attention to several inherent conditions that have a powerful influence upon development of the county society. One of these I shall designate as "The One-Man Society". It has been my good fortune to meet and work with some men who are natural born leaders and who have made the needs of their community and of their county society a careful study. They are invaluable to their associate physicians; they direct the county society's activity in such a manner as to develop the confidence and esteem of a majority of the members, and they also develop a working relationship with voluntary and official agencies in welfare and public health work, with which the county society and its members come in contact; and they have thus been instrumental in having the welfare and public health work of their community placed on a high standard. Unfortunately, I am obliged to say that, in some instances, I have seen to a degree, the opposite effect produced by an influential man who had not completely overcome his own individualism. The future of the one-man society is likely to be in doubt, especially when the leader has not taken the pains to develop proper understudies. I can recall a society that was, in its day, one of the most powerful in our state; it enjoyed at that time the leadership of 3 exceedingly prominent men in the state society. One by one these men have died, without leaving any specially trained men to succeed them, and today the society is energetically engaged in recovering its loss, which it still feels as a serious handicap.

The "two-meeting" society is another condition that must be considered. A society that meets but twice a year will experience great difficulty in developing fraternalism among its members and in taking an active part in the community's activities. Action taken at a semi-annual meeting assumes that the members present have previously, upon their own initiative, considered the subjects upon which they pass at that time, because a matter that is brought up at one meeting and laid aside to be acted upon 6 months later, will frequently be out of date. Only the most general scientific subjects will be applicable to such a program, and correspondence with that society will be unsatisfactory. If a communication is received by the secretary on the day following the annual meeting, he will have no opportunity for presenting it to the society until 6 months later, unless

there are more frequent meetings of the Comitia Minora, which some of the two-meeting societies have, but, even then, if it is a matter that requires immediate coöperation of the physicians, it must fail of its mission unless it is of sufficient importance to call a special meeting. Community conditions are changing so rapidly that an organization that meets but twice a year cannot expect to keep adequately in touch with its surroundings.

Hospital staff meetings versus county society meetings, is another condition that must be discussed. Hospital staff meetings, in some instances, have a stimulating effect upon the county society, but, more often, I fear, they have an undesirable effect. A majority of the physicians of a certain society may be on the staff of the county hospital and, therefore, meet each other in staff conferences once a month. They see no particular reason why they should have a county society meeting except annually, to elect officers, because it is very likely that only a few, if any, of the physicians who are not members of the staff would be present. This is a correct observation, because the men who are not members of the staff of that hospital are inclined to feel shy and diffident toward the other group and when there is a meeting of the county society, if they happen to be present, they will very likely not be able to join freely in the conversation and, unfortunately, the members of the staff either do not realize the situation, or make little effort to correct it. The formation of social cliques in any society should be discouraged.

It has frequently been said that a county society is just as good as its secretary. When the secretary is a good one, I heartily agree with this statement, but, all secretaries are not uniformly good, and I have in mind several very successful societies whose achievements are directly attributable to the activity and farsightedness of their presidents. Of course, the secretaries usually hold office for life, or, at least, so long as they will permit themselves to be reëlected, while the president's tenure of office is but a single year. However, it sometimes happens that a county society will have a succession of good presidents and, in my experience, that is the best thing that can happen to it. For a secretary to maintain a lively creative interest in a society, means that he has got to have the coöperation of the society. If he fails to keep alive a coöperative interest, even the best secretary will eventually take his position as a matter of fact. One of the most mischievous activities that a society can enter into is the practice that some have of electing men as presidents, not because of any manifested ability as an executive, but rather to do the man an honor. Such society usually suffers for its kindness. Only such physicians should be elected presidents as have initiative, vision and are willing to take the time from their practice necessary to organize the society and promote its programs. The same qualifications should be placed upon those appointed to be chairmen of committees and named as delegates to represent the county society at the state meetings.

The ideal society will encourage every member to feel his responsibility for the success of that society, and as each takes the share of his responsibility seriously, will the need for discipline decrease and the welfare of the community, the county society and the state society all prosper. An active, conscientious county medical society is an asset to any county.

Discussion

Dr. Arthur C. Morgan (Philadelphia): Dr. Lawrence has given us some very practical points and observations derived from his own experience in the field, an experience which can be duplicated by all of us in the major part.

In a county society existing in a city or with large membership, the first thought is that they have a wealth of material to draw from; the fact is that their proportion of attendance at meetings and their availability of real live men for work, especially as chairmen of committees, are woefully deficient. During 2 years of active service in Pennsylvania, I have found that the large county society sometimes does not function as well as a smaller, better organized society, with an efficient secretary. I can use the standing of the county society as a thermometer, if you please, to tell whether the temperature of activity and of enthusiasm in that county society is subnormal, normal or above normal. I grant that presidents should be selected because of their ability and the expectation of service that they will render. I am most decidedly opposed to selection of a man simply because he possesses some honor or distinction: because a man is a well-known professor of surgery or medicine, or a leader of this or that group in some scientific pursuit, is not sufficient warrant that he will give a good return from being honored with the presidency. There was a time, years ago, when medical education was carried on simply by lectures and the more brilliant the lecturer the more students were attracted to that institution. Today, a lecture course in a medical college is almost in the discard. So, the workers in a county society of today should be men who are real workers, who are selected not because they are brilliant but because they want to render good service. I am sure that any county society that is governed by the narrow thought of brilliancy alone will not be a successful one during the tenure of office of that man.

In respect to autonomy, referred to by Dr. Lawrence, a large county society tends to feel puffed up because of pride of membership in numbers and influence in the aggregate, which brings up again the old problem that crops out so often between urban and rural legislative districts; and also the sense of superiority possessed by a large county society that thinks it is entitled to greater recognition in the state society than are the members from a smaller organization. If you please, it is simply another phase of the doctrine of "states' rights". That doctrine has its advantages but it has also its dangers. New York some years ago had the unfortunate condition of having the New York County Society separated from the New York State Society. I am frank to state that in the Philadelphia County Medical Society that same problem now and then makes its appearance, and threats are made and suggestions advanced by some members who claim that because Philadelphia has a large membership, the largest membership of the state, they are entitled to certain privileges that do not obtain for the others and which they would not be willing to give to a smaller county society. Each for all and all for each, should be the rule in the medical profession.

The time of meeting of a county society depends upon convenience of the greater proportion of their active membership. A couple of years ago the Philadelphia County Society tried delaying their meetings until 9 p. m., the cry being that members from outlying districts could not get in

to an 8 o'clock meeting in time to hear the scientific discussions. The result was that no increase in attendance was noted; in fact, attendance of members in the central part of the county seemed to fall off. They then reverted to a compromise, meeting at 8:30 p. m., and that seemed to work out quite well.

Another thing that should be discussed is distribution of the membership throughout a given county. I found in Pennsylvania, especially in the northwestern section, that some cities had a tendency to hold all their meetings in one section of the county. I took up this matter with members from the extreme ends of the county and discovered that they felt they were being ignored, that the cities ignored their country brethren, so that they declined to attend the city meeting. But, on the other hand, when an invitation was extended at my suggestion to some of these other sections of the county it was found they were not prepared to put on a program, so that their criticism was of the destructive and not constructive type.

Dr. Frank C. Hammond (Philadelphia): Just a few facts have entered my mind as Dr. Lawrence was giving an outline of his subject. One is the question of delegates. We feel, in Philadelphia, that it is very wise to reëlect delegates to the state society who are rendering the best service to the county society, but we cannot always control the situation. We do not feel that at the time of our annual meeting perennial delegates from certain county societies can be depended upon to keep up with what is going on, and that it is rather unwise on the part of the county society to send inexperienced men.

Many a good secretary has been spoiled by electing him president of his county society; if they have a good secretary he is a valuable adjunct and they should try to hold him.

In the Philadelphia County Medical Society we made a very interesting study over a period of 3 years. We found that the programs upon which we worked the hardest brought forth the smallest attendance. Just what is going to be most attractive to the various members is difficult to determine. It would seem from our experience that it is rather hard to get an attendance in county societies where subjects pertaining to organized medicine are brought forth, and yet I think we should foster programs of that kind. It is our feeling that in scientific programs there should be a paper, from time to time, on organized medicine, because if a program is devoted entirely to that subject the members will not attend, but if such a paper is injected occasionally you are bound to get members to hear it who would not be present otherwise.

The question of the election of a president in order to honor a man is rather an unfortunate way of doing things at present. Organized medicine is such a large subject that unless a member of the county society is well versed in the requirements of organized medicine he is very apt to make a poor presiding officer. A man should be trained for the work and broken into harness before he becomes a president.

The Pennsylvania Journal last year asked the members of the rural districts if they had any suggestions to make, and we received one very interesting letter from a county member to the effect that his county society showed poor attendance because the meetings were held at 9 or 9:30 p. m. and the rural man could not get back home until 2 or 3 a. m. It was suggested that a meeting be held at a time suitable to the general membership in the county and an editorial was written along that line which brought out some very interesting opinions from the county members.

Dr. Thomas G. Simonton (Pittsburgh): I was intensely interested in Dr. Lawrence's practical paper. It had more meaning in it when boiled down than many papers I have listened to for 3 hours. He mentioned several interesting points that I cannot do more than emphasize. Regarding the scientific program, in a lot of these smaller rural communities they say the whole thing depends upon the secretary. I have found one of the best ways to inspire interest is to suggest to the county society that if it is having only 1 or 2 meetings a year, to start a postgraduate course with the idea of bringing in other men to create an interest, then after the men begin coming to the meeting for their postgraduate work, to gradually ease up and put on a program that is made up by their own members, and in a month or two have some outside speakers come in, but see that every man in the society has some assignment. At the end of the year read the report of those who were assigned and those who reneged. The idea is to create interest and to make every member in the society do his part. In every county society you will find some men who are anxious to get on the program. The only way is to give them a place and then let the other men have a chance. Some men are shy and feel that they have nothing in common with the others; they must be brought out.

Having too many outside speakers is a mistake but one should be on the program once in a while in order to boost the society. The rank and file of medical men want a practical paper that they can take home. If one paper is put on the program that can be taken home and used in practice, you will find that the men will talk about that meeting all the balance of the year. On the other hand, if you put on a man who is going to read a lot of laboratory data he will not be appreciated. Let the surgeon read a paper that is adaptable to the general practitioner. If the specialists want a highly scientific paper the place for that paper is in their special group. If you have a nose and throat man give a practical paper on adenoids and tonsil cases, with symptoms and signs, it will be appreciated by the general practitioner; but highly specialized papers should be left for groups of specialists. In the Pennsylvania State Medical Society we have tried to have papers that were extremely practical and to advertize it to the men in order to bring them out. In small county societies where 3 or 4 are gathered together and have the heart to work they can accomplish something.

In some of the county societies it is hard to accomplish much. There should be a meeting at least once a month, and to have it at the county seat all the time is a mistake. Take your meetings to the men in the country and do not always have the men come to one particular place. The Woman's Auxiliary is bringing the wives out and this will in many cases also bring the men.

I have had an awful experience with what I call "program hog". It seems that the more eminent the man the more anxious he is to get on the program very often. One man who is on the surgical program will often try to get also in the general section or the medical or pediatric sections. Any man who is given a place on the

program and fails to appear should be blacklisted. I remember one surgeon who insisted that he should be on the program. The program was in the printer's hands and I telegraphed and asked the printer to hold it for 12 hours in order to get that man's name on. He came to the meeting but, 10 minutes before he was to get up and present the paper, he went home.

Dr. James E. Sadlier (Poughkeepsie, N. Y.): It was my pleasure and privilege last year to see in action a very considerable number of the county medical societies in the state of New York, and the differences in method and plan of activity of these various organizations were to me a revelation. I have in mind sitting in a bedroom in a county in the Adirondack section of New York, a county distinctly rural, with a membership of only about a dozen, but we had around us in that upstairs bedroom 7 or 8 intense, active, energetic county practitioners who dealt that day with the subject of "school inspection", and the discussion was carried on in a most scientific and interesting manner showing that the men in that rural district were right up on their toes on that particular subject. I have in mind another county, the largest in the state, where by reason of the vast number of medical organizations, special societies, etc., the membership was usually 200 or 300 at each meeting, but in actual scientific advancement that meeting did not equal the little one up in the woods.

Speaking of the one-man society, I am in thorough agreement with Dr. Lawrence but I cannot help feeling that 1 forceful man in a county society can do a great deal to lift that organization and put it on rather a high standard. I am thinking now of a certain day last April when I attended 2 county society meetings on 1 day. The one in the forenoon was rather desultory in character, rather given over to contention, with no definite leader, no one man who would come to the front and put that society properly into line and keep it doing its work as it should. On the evening of that same day I attended another county society, 140 in membership with 150 members and guests present at the dinner. They had 180 present at the address by one of our great men afterward. Now why was that latter society such a success? Because 2 successive presidents had been active, energetic, dominating men who had lifted that society from a condition of dry rot into one of intense activity and usefulness. So that, while I think we would all deplore the fact of a society being continuously a one-man society, we must have some dominant doctors in each county society who are more than interested in the practical life and activity of that organization.

There is one other thing that I particularly want to speak about and that is the necessity for the state society to keep in definite contact with its county societies. We had a bitter lesson last year in New York State as a result of thinking too much of the county societies as autonomous organizations, to be left to themselves, to carry out their own plans and activities. I feel that the state organization and those who are in charge of the state society have a definite duty in welding together for definite coöperation the state and the county activities, and that the state society should keep in close touch with each county and see that it is operating along correct lines and help to boost it from time to time. I feel that if we, as officers of a state society, do not pay a sufficient amount of attention to overseeing and caring for the activities of our county organizations, we shall not be fulfilling our duty.

Another thing may happen to devitalize our county society. Every one of us must conceive that the staff meeting can be an excellent thing but it must not be allowed to detract from the organized medical group as a body. Only yesterday I heard one of our excellent men from my state bearing out the thought, which was an excellent one, that the staff meeting of the hospital should be in some way relegated to the position of a district meeting of the county society in order to correlate the activities and the clinical advantages of the particular staff meeting under the leadership of the county medical society. The county medical society should be uniformly a stronger unit than it is and it seems to me that frequent contacts between the state organization and the county units are perhaps the most essential things that we can consider.

Dr. James Van Der Veer (Albany): I occupy somewhat the position of a dual personality, having been at one time president of our county society, just after the war, and later becoming one of the state officials as Chairman of the Legislative Body. Some of these questions come pretty close to me and I would like to refer to this subject under the head of the scientific, the economic and the social relation to the state and county society. In many county societies, as the Doctor said, there will be 8 or 10 men who are lazy. They actually have not the initiative within themselves for the scientific end of medicine. Each one is practicing as an individualist in his community. In New York State recently we have put on a postgraduate course to further educate the men in their practical work and that has been a wonderful success. I believe the expense to our state society has been something like $5000 so far for this year. Groups of men—not the highest men scientifically in the profession—are sent to the county societies, upon the request of the county society, to give a series of talks on subjects that are pertinent in medicine.

I have a brother in New York City who is quite different from myself, he having been a New Yorker all his life, and having absolutely no idea of upstate medicine. He is an extreme specialist and has no interest in medicine or surgery except in its relation to his asthma work. He said a few days ago: "Do you know I recently had the finest time. I went up to a county society meeting in the western part of the state, a rural county society, and gave them a paper. I did not know that they knew so little about asthma and hay fever work and they pelted me for an hour and a half with questions about it." As I come from the central part of the state, that opened my eyes to the value of the postgraduate courses, not alone to the physicians or teachers in the simplest form given, but we transferred the older specialists from the city into the rural district where they were some years behind in actual practice—not in theory of course—of this advance in asthma and hay fever work. We are trying that out in New York State and I assure you it is meeting with great success. The rural practitioner is reaching for information of the latest type in medicine. However, his time is limited, although he has more time now to perfect himself in the advances medicine is making than in years gone by, because of better roads, automobiles, etc.

As a corollary to this, it occurred to me while Dr. Lawrence was reading his paper that it would

be a good thing for a state society to adopt the plan of drawing up a year's program for use throughout the whole state, to be put over by the county societies in each individual county. That is, a state society might adopt for one year the study of 1, 2 or 3 subjects and then draw up a scheme of this sort to have each county society at its meeting in December, January or February carry out the statewide plan; and then have the state society correlate it and utilize it as an experiment but from a scientific standpoint. I would like to see some state society do that. In a county dominated by 1 large town or city it seems unwise to meet always in that city; some meetings should be held in the smaller towns. There would be some opposition as regards the urban county societies such as the Philadelphia County, or the Albany County where they have always met in Albany. We tried an experiment recently of this sort and we only had 7 men out of 125 practitioners in Albany attend the meeting in the smaller county town.

We are beginning to deal with the economics of medicine, in New York, and with the staff meetings of the hospitals, having the older scientific bodies give out information to the doctors throughout the counties. Having been in the political turmoil in New York State we are finding a group of men who are beginning to believe that the county society, by reason of these numerous meetings, will find that its functions in the future will be along the social and political lines, perhaps. Personally, I feel that would be a mistake and I think our county societies will have to adopt a plan such as we have tried out several times in Albany, keeping account of the types of men who come to the meetings, dividing the program up into the scientific papers, economic discussions where the legislative features come in, and then the social meeting afterward, perhaps a poker game or a dance. At one time we had the economic and the social features combined and that proved a huge success; the rural members attended the meeting in large numbers and associated with those of us in the city. That is a mooted question of course that faces us all, especially in the urban county societies.

As to the economic relationship, when I became Chairman of the Legislative Committee, a group of the county societies were not correlated except once in the year, that is at the annual meeting when the House of Delegates met. I persuaded the state society to give me Dr. Lawrence as an executive officer, which was the first plan to reorganize the state society. Then I asked the Trustees to give me an appropriation to bring together in Albany during the legislative session the chairmen of legislative committees of the various county societies. That was partly social, partly economic, and partly legislative in type. Since that first meeting there is not a dissenting vote to allotting that sum of money, which amounts to $700 or $800, from our treasury for this purpose. We are discussing now whether it will not be a wise plan to have the secretaries of the county societies, and perhaps the presidents also, meet together once or twice a year, exchanging views among the various groups in the state society. Thus we would adopt policies and plans long before our House of Delegates meets, avoiding a certain group saying why did you advise this without our knowing anything about it. The meetings of the county society give a chance to discuss these questions. The more one can gather together the various groups of the state society the more one promotes the economic features in our medical life.

There is one problem which touches upon the financial end of the county society. We have a very large county society which is lamenting the fact that it cannot collect the money for dues from members, and in our state we have a certain per capita which must be forwarded to the State Treasurer. The dues for membership in the Academy of Medicine are $25. They have to raise $10 for the state society and $3 to $5 for the county society. Out of about 200 members we have perhaps 25 who are back in their dues. Some states do not have the direct collection of dues by the county society which is then forwarded to the state society. I understand that in some middlewestern states you may belong to the county society only and if you want to become a member of the state society the dues are sent directly to it.

Another question which comes up in the county society is the economic feature. There are several hospital groups in Albany. We have 3 hospitals and are building a new $500,000 county hospital. We have 1 medical college there, and that group is about to seize the material that will be in the county hospital. At the present time patients are allocated to the 3 hospitals by the Commissioner of Charity of the county and the question comes up as a political feature, which we are trying to obviate, as to how the staff will be arranged for in this county hospital. Some of us are working upon the theory that it being a county hospital the county society should name the staff which, of course, will inject some politics into the county society but which may create a committee that will eventually be advisory to the hospitals within the county, including the county hospital, and which may be the advisory committee to the Commissioner of Charities in the county hospital. I think the county society should take more steps to investigate the staffs of the hospitals that are located in the county, just as was suggested in the American Medical Association at its last meeting; that the State Society should make a survey of the hospitals, their facilities, their staffs and the plans in the various states, thereby relegating men to the organized group of medicine in the county and state societies. This is a thing the county society in its economic feature has forgotten in the last few years owing to the rapid strides made in the scientific end of medicine. I wonder if any of you have heard of the experiment which the University of Vermont has put out? Realizing that there is a demand upon the part of the medical profession and of the public that the young men graduating in medicine must have more experience, the University of Vermont, beginning next June, will send out to hospitals and physicians in the neighborhood of Burlington its whole senior class before giving them their diplomas, and they must serve 3 months of work with a practicing physician in a country district. That is an experiment which I am going to watch with a great deal of interest. Some practitioners will request these men, others will say they do not want them. Some will demand that they be sent every 3 months to them during the school year. It may be that this kind of postgraduate instruction before receiving a license to practice medicine will be a great improvement.

Lastly, as to the social features of the county society, I think undoubtedly the secretary is the main bulwark in most instances and that the by-

laws should require that the secretary hold office for a term of years. You may get a bad man in, but it might be made permissible to eject him. There might be a standing policy in the county society that a good secretary shall be reëlected for several successive terms. It is he who keeps the county society alive, while the presidents change from year to year. I know of only 2 instances in our Albany County Society in recent years where the same president was reëlected for a second year; those were not men of high medical ability but they had the faculty of cementing men together and bringing out the best thoughts and plans; they planned the programs so that every group in the county society was anxious to come to each meeting.

Dr. Harry R. Trick (Buffalo): In order that we may better understand what Dr. Lawrence calls the opportunities of county medical societies I think we can very well afford to review the reasons for the original gathering of medical men into a county society group because, as a matter of fact, the same reasons exist today; they are fundamental. Somebody has said that man is a gregarious animal and I presume that may have been the first thought in organizing, which might also include the social side of medicine, its economic phases and advances. In the early days, as of course you all know, the health of the public was in the hands of the medical profession. They were responsible for that and they were also responsible for medical education and licensure. Now, although we have transferred those activities to official bodies, I feel that our responsibility still exists.

Those 3 points can come to all county societies, whether urban or rural, and we may have to adapt our activities to the needs of each county society. I feel that we should educate our recent graduates, and perhaps the senior classes, as to the reasons for joining their local county medical society. Most of these boys come in because they are asked and for no other reason and it takes them a long time to learn why they are there. In our school in Buffalo we take advantage of the fact that the Chairman of the Committee on Medical Economics is in our neighborhood and we see that he talks to the senior class at least once or twice explaining why medical men are organized and what their reasons for organization are. Under the head of medical education we are continuing to maintain if possible the morale of the membership by furnishing them with these methods of instruction, to improve their scientific work and to make them better servants of the community.

The various public health activities are also a responsibility of ours although a great many of them are under official control. I feel that if we can maintain the original reasons for organized medicine, keep them in front of the membership constantly, attack these various problems in an organized way, that we will thereby maintain a more active interest in the work of organized medicine. That means that these county societies must be organized to take care of the various problems. One group will look after the social side perhaps, another will see that the medical education work is carried on, and still another group should familiarize itself with the various types of public health activities, the way in which they are carried on, and report back to the county society meetings their findings with the idea that organized medicine can thereby secure a proper place in these public health activities.

I think that Dr. Sadlier's modesty perhaps prevented him from telling what we are doing in New York State under his leadership. He has kindly taken the Chairmanship of our Committee on Public Relations and has organized a program whereby each county will have its own committee on public relations and they are to be instructed first to make a survey. All the men in the society know something about it but in a very superficial way. As a result of this form of activity, I think all of the men will become more thoroughly interested and will come out to the meetings to see what is going on.

This question of outside medical bodies, of course, is a difficult one. We cannot possibly attend all the meetings and the result is that we often sacrifice the most important one for our own comfort and desires. Whenever I have had the opportunity I have taken advantage of it to remind men that the very fact that they are practicing medicine today they owe to the efforts of organized medicine; the standards of our medical schools and our requirements for graduation and licensure are all the result of what organized medicine has done. As a matter of fact the position that the profession occupies in a community is maintained by the earnest efforts of those who are responsible for the work of the societies in the various states. If we can impress that fact upon the membership, with their normal sense of appreciation, it would prompt a better response.

Dr. William T. Sharpless (West Chester, Pa.): Much has been spoken about the relation of a hospital staff to a county society. Most of the counties in Pennsylvania have hospitals. In nearly every instance that I am familiar with where there is a county hospital there is a good medical society and they do not seem to conflict. Some one spoke of the detraction of interests from the county society by the hospital staff. We often have the county society meet at the hospital in West Chester and a clinic is held there. The material from the hospital is used for illustration at the county society meetings which are very successful and well attended. I must confess that we have better attendance if we have a man come from the outside, and, frankly, nothing stimulates the men so much as a dinner; it is a very successful device for getting men together, although I do not know how far it contributes to the intellectual success and interest of the meeting.

Someone referred to the type of men that are put at the head of the county and state societies. It used to be said that men of great reputation were put there and I am sure there has been a great improvement in the various societies.

As to the time of meeting, the meetings must be in the day time in my rural community.

As to the experiment that is being tried in Vermont, Dr. Joseph S. Evans, Professor of Medicine in Madison, Wisconsin, is using that very method and seems to think it is going to be a great agency for helping men in the art of medicine. They select the man, however, into whose office they put these men with great care; they must be men of a certain type.

It is very important, I think, that we should send the same delegate back year after year. He knows the men and knows much better how to handle matters that come up than a new man would.

Dr. Walter F. Donaldson (Pittsburgh): I shall cherish the points brought out in Dr. Lawrence's

paper and later develop them for our very large membership in Pennsylvania. I heartily agree with practically everything that he has said but will take issue with him, probably misunderstanding his point of view, on the development of social cliques in the county medical society. I have believed that progress develops from these various cliques and, while I believe that the county society that has a good secretary is blessed, I also believe that the one that has different cliques or groups is twice blessed. Scientific groups work well with the social groups; economic discussions merge well with social features, but not with the scientific features. I am opposed to mixing economic with scientific discussions because the economic discussions nearly always degenerate into a talkfest and completely detract from the scientific subjects. So I would emphasize but one point in today's excellent discussion and that is the encouragement and development of sociability in the society. I do not have much fear of social cliques because as a rule men who are socially inclined are gentlemen and inclined to rub the right way the member who attends the society only occasionally and who would perhaps attend all meetings if he were made to feel that he was actually a part of the society. I trust that you will all give a little more attention to the development and encouragement of men who have social attractions.

Dr. J. B. Morrison (Newark, N. J.): I think the keynote in this discussion was struck by Dr. Sadlier when he made a plea for the state society to supervise and interest itself in the county societies. I once overheard a county delegate to the state society asking why the state society had no interest in the county society; he said that they had not seen a state society officer at a county meeting in 4 years. When I accepted the office of secretary of the state society, I believe I made that remark the basis of half of what I have done. The work of the state society officers in relation to the county society differs in our 3 states because of relative size. In New Jersey we have 21 counties, a relatively small territory to cover in comparison with the other 2 states, but the work done in assisting the building up of the county societies has been enormous. We have adopted a policy of having the Secretary, President, Editor of the Journal in his dual position as Editor and Executive Secretary, and on several occasions a member of the Board of Trustees and of the Welfare Committee, go in a group to a county society letting it be known in advance that they are coming and what they will talk about. It adds to the membership, promotes increased interest, brings out men who would not otherwise be there. The live topics of organized medicine are discussed pretty freely and thoroughly. It has produced a wonderful improvement also in the attendance at the state society meeting, and has stimulated those men along every line of endeavor.

The question of programs and who should be selected for them is difficult. We make a policy of developing the local man wherever it is possible but we see also in the smaller societies that attendance can only be secured by bringing in some outside man who will come down to the level of the men and not talk over their heads. It was my privilege to attend the Atlantic County Society meeting at the Hotel Chalfonte last evening where one of the men from the University of Pennsylvania gave a talk on the newer treatment of syphilis. He was a charming speaker and master of his subject, which is one that appeals to every man in the profession, and he had the interest and attention of every man there. Another point I am making is that the discussion even by the local men was comparable to the address itself. That is the type of work that we should formulate, promulgate and encourage. First, select your speaker, who must not be a "highbrow" man but one who will present a subject in which all the men have an interest and from which talk they can draw help.

One little county society in New Jersey with only 35 members engages a stenographer to take down the discussions. If there is something new developed upon a particular subject they may or may not carry it away with them but if they want the report it is there. It is an enormous stimulus to interest.

For 3 years we have adopted the policy of encouraging all county societies to hold 1 meeting a year on the subject of medical economics, and 1 on public relations; the formation of a live committee to study economic subjects, prepare papers and discussions upon a dozen or more topics in relation to medical economics that are live issues all the time and that cannot be properly taken care of in a meeting where a scientific program is going on. The same thing is true of our public relations work. We must make the county officers realize that they must throw themselves into this public work, if not we shall be swamped. We are endeavoring now to use our influence in the control of lay organizations engaged in health work. We must educate them to the fact that success of all their movements depends upon the leadership of the medical society and the cooperation of the society with the aims they are trying to promote. These are subjects that should be forced upon the county societies and the efforts of the state society should be to develop them to the highest degree.

I am glad that Dr. Donaldson called attention to the social aspect. In some of our county societies we have a purely social meeting once a year, no medical papers, but they invite several speakers from among the officers as well as outside speakers. The wives of the members are invited for dinner. The meetings are usually held at 4 p. m. They have a social time, the spirit of friendly intercourse is cultivated and it is altogether an excellent plan. Then, in New Jersey, we have found that the formation of the Woman's Auxiliary has increased the average attendance at the county societies. The attendance is remarkably high compared to 3 or 4 years ago. The attendance at the state society convention this year was increased in registration about 30% because of the meeting of the Woman's Auxiliary at the same time. They are a very valuable asset to us. The organization is only in its infancy but the influence that these women can bring to bear on the lines of endeavor in social and economic fields where the medical profession is trying to accomplish things is very great. In our annual meeting in June, a woman member of the auxiliary made an address that was remarkable in scope and character, one of the finest things I have ever heard in the field of medical endeavor, showing the things these women can do toward helping us in our efforts with the public. There are hundreds of just such women in all of the states and we should get them interested in this work and have them aid us in our efforts.

Dr. Henry O. Reik (Atlantic City): I want to thank Dr. Lawrence for having responded to my

request, and for giving us such an excellent paper. I also want to extend you all an invitation to come into New Jersey and attend some of our county meetings.

The practical effect of the state society officers visiting the county societies in New Jersey might be shown by the fact that when Dr. Morrison assumed the secretaryship 4 years ago less than half the county societies were having monthly meetings, the other half were holding only from 1 to 4 meetings a year; whereas, at the present time about three-fourths of the societies in the state are holding 8 meetings a year—those formerly having 4 meetings have increased them to 8, and those formerly having 1 or 2 meetings a year have increased the number to 4. One comparatively small county with only 35 members has now 8 meetings a year and they have a much larger attendance than when they had quarterly meetings. Nearly every county society meeting in this state is associated with a luncheon or a dinner, and in the summer season they have in some of the counties picnics, field games, golf, etc.

I would like to emphasize, especially for New York's benefit, what Dr. Morrison said about the Woman's Auxiliary. At first we were skeptical about it. We watched it developing in Pennsylvania and have been amazed at the progress it has made in New Jersey in the year and a half we have been developing it. In nearly every county there has been an increased attendance at medical meetings, attributable to the auxiliary. One county only stood out against organization, and yet the first meeting they have had this fall brought out the largest attendance in 4 years.

One point touched upon by Dr. Van Der Veer was—to what extent should county societies interest themselves politically; to what extent should they become active in state politics? At a recent meeting of a county society here Dr. Morrison and I lambasted a candidate for the state senate. He had been the consistent opponent of everything the medical profession desired. We told the county society what its members should do, and that if they allowed that man to be advanced from the House to the Senate they would have nobody to blame but themselves for what happened thereafter. I do not know whether our remarks produced any material effect.

Dr. Morrison: Unfortunately the day of that meeting was too close to the day of the election. The next morning before I was out of bed one of the members of that county society called me up and wanted to know the record of the man in the legislature. I asked him to call Dr. Reik about that. I believe that if it had not been for the vast Republican vote this year the man would have been defeated.

Dr. Joseph S. Lawrence (Albany): (Closing) I want to thank you most heartily for your considerate and stimulating discussion of a paper that was so hastily gotten together. I feel convinced that if I were obliged to do so I could produce another paper with equally as many points as this contains that have not been touched upon yet and that would be as important to discuss for the future welfare of the county society.

To review briefly some of the points raised, Dr. Morgan referred to the distribution of meetings so as to help all sections of the county; we have a number of instances where we have met with anything but encouraging results, where we have attempted to move the meeting place around in order to accommodate the physicians. I have in mind one county where they ordinarily hold meetings in one town, and another town which was just as large and quite jealous endeavored to secure the meeting. The president of the society lived in the first town and he did not even attend the meeting held in the other place. It is a very difficult problem. If the men are friendly toward one another you can move the meetings around, otherwise it will require a lot of generalship.

In regard to papers on organized medicine not being attractive, I have observed that following some of the most interesting scientific papers it is not the scientific paper that is discussed but it is organized medicine. Everyone is talking about the problems of the medical practitioner and I believe that if we make the papers on organized medicine more attractive the result will be good. Too many times we ask a man to discuss a paper from the medical economic point of view and I find he doesn't know anything about it or else he has had little personal contact with the subject. We should now be prepared to read and listen to scientific papers and to the economics of medical questions as well. We should give more attention to that subject ourselves, I think.

With reference to politics, we have been in politics for quite a while. Our legislative committee chairman visits every county society and discusses the bills that are before the legislature. He is able to discuss it before the society and they are ready to listen and to take sides, not from the point of view of general politics but from the point of view of medicine as to whether or not the candidate is a good man to send back. Governor Smith has been a wonderful friend to medicine, all the way through, and every county chairman has supported the men who were favoring the medical point of view regardless of his party.

As to the time of meeting, an interesting experiment was tried in one of our small counties. They always had trouble getting the men out. The rural men would not come long distances and the town men would not go to the country. The day before the experimental meeting an announcement was inserted in the paper that no patients need consult any doctors in the city or county the next day between certain hours because they would be attending an important medical meeting, and the society had a much larger attendance.

We have had the same experience that Dr. Sharpless refers to in regard to the program "hog"; not only does he want to be on the program all the time, but I heard one man talk a society to sleep on the subject of surgical tuberculosis, from 8 to 10:30 p. m., and the man who opened the discussion said it was a wonderful paper and he was glad of the opportunity to discuss it. I am sending to the presidents of county societies a suggestion of 4 subjects covering a wide field; they are scientific, economic, and are related to organized medicine. I am waiting to see how many of them use the suggestion. Two societies have already adopted the suggestion.

I accept Dr. Donaldson's criticism. I will say, however, he did not get the point I had in mind and I agree with him that a social clique has a place. I was thinking of the scientific clique. where "the other fellow" does not have a chance and in consequence stays at home.

I heartily agree with Dr. Morrison's idea that the state officers meet frequently with the county societies. It is most stimulating. We had the

experience of one county society never having had a president visit them.

We are having more frequent meetings also of the county societies in New York State, but in order to do that you must have someone there who knows and appreciates the reason for doing that or the meetings will fall flat. In other words, you must have a leader in the society; but you do not want him to be the whole society. He should be one who will induce the others to help him and such a man is an invaluable asset to any society. One who wants to do it all himself is not a credit to the society.

(To be continued.)

TABLET TO LUCIUS F. DONOHOE, M.D.

(Report of the event furnished by Charles J. Larkey, M.D.)

A handsome bronze tablet, bearing a remarkable likeness of City Commissioner Dr. Lucius F. Donohoe, will be placed over the fireplace in the lobby entrance of the new Bayonne Hospital in a few days, a tribute of the Board of Directors and Medical Board of the institution to the man who so successfully directed the campaign in which the funds required to erect the new hospital and Nurses' Home were raised.

The presentation of the tablet was made December 18 at a dinner held in the hospital, attended by directors, members of the Medical Board and Dispensary staff and prominent guests, in honor of Dr. Donohoe.

The dinner and presentation came as a complete surprise to Dr. Donohoe. He had been requested by Dr. Charles J. Larkey to visit the hospital last night. Dr. Larkey led the medical director into the nurses' dining room, the lights being turned on as they entered. Seated at 2 long tables were other medical men of the city, and directors of the hospital while at the head table were the invited guests, among them Miss Mary J. Donohoe, sister of the guest of honor, and Principal of the Mary J. Donohoe School.

It was about 2 hours later that he received the second surprise of the night, that being presentation of the bronze placque, by Dr. Stanley R. Woodruff, who acted as toastmaster. Dr. Larkey, Dr. Morris Tepper and James J. McGrath, one of the directors, carried the stand holding the tablet into the room while Dr. Woodruff was talking and it was unveiled by Dr. Larkey as the toastmaster was concluding his opening speech.

The tablet bore the following inscription, "A tribute to Lucius Francis Donohoe, M. D., F. A. C. S., in recognition of his faithful and invaluable services rendered in the building of this hospital erected in grateful appreciation by the board of directors and medical board of Bayonne Hospital, 1928."

The bronze portrait tablet is the work of Anton Schaaf, noted New York sculptor, and is 35 by 30 inches.

Besides Dr. Donohoe, Miss Donohoe and the toastmaster others at the speakers' table were Dr. Ephraim Mulford, of Burlington, President of the Medical Society of New Jersey; Gen. William C. Heppenheimer, member of Port of New York Authority and President of the Trust Company of New Jersey; Dr. Joseph F. Londrigan, Medical Director of St. Mary's Hospital, Hoboken; Dr. John Nevin, former Superintendent of Jersey City Hospital; former Assistant Prosecutor John F. Drewen; Superintendent of Schools Preston H. Smith; Randolph Sluter; Vice-President of the Board of Directors, DeWitt VanBuskirk; former Chairman of Port Authority, Frank H. Winants of Baltimore, Md., stepson of Dr. Donohoe; and Edward Claxton.

Dr. Woodruff read a letter from Chester F. Smith, President of the Board of Directors, who was unable to attend because of illness.

"Dr. Donohoe has been identified with the Bayonne Hospital for over 30 years. During the last 15 years the appointments and facilities that he and his medical associates have had to work with were homely and unimpressive, still, because of the wonderful skill and high ethical standing and practice of the medical staff of which the honored guest is and has been for over 12 years the very efficient and progressive director, a certain nobility of character and excellence in tradition has been built up for the institution which will outlive the buildings themselves.

While the undertakings just completed are the realization of what our directors appreciated to be the actual need of the community, there is no question that this million-dollar program would never have been started and carried through to completion on the large scale which it has been (notwithstanding the fact that we were all agreed as to the need) had it not been for the persistent and indefatigable effort, the energetic optimism and faith of Dr. Donohoe that would not be denied."

In making the presentation of the tablet, following his reading of Mr. Smith's letter, Dr. Woodruff said: "He has been bronzed by the sun and winds of Maine and now he is to be bronzed by the medical men and board of the Bayonne Hospital."

Dr. Mulford declared that Bayonne was to be congratulated on erecting such a fine institution and that the city is flattered in having such a man as Dr. Donohoe as the head of its medical board. He told briefly of the work of the guest of honor as head of the New Jersey Medical Society from 1925 to 1927.

The presentation of the tablet Dr. Nevin declared a wonderful tribute to Dr. Donohoe. He said it was a sad commentary on the part of the public that the work of medical men is so often unappreciated.

The guest of honor was held out as being one of the outstanding men in the community by General Heppenheimer, who complimented the donors of the placque for their thoughtfulness in making the gift during the lifetime of Dr. Donohoe.

Dr. Londrigan said that Dr. Donohoe was always working for others. Mr. Van Buskirk told of knowing the guest of honor since boyhood and declared that he always ministered to the needs of the poor. He credited Miss Donohoe with being responsible for a great deal of her brother's success.

At this point Dr. Donohoe was suddenly called out, Dr. Woodruff explaining that he had been summoned to the bedside of S. K. Hawxhurst, General Manager of the Gulf Refining Company, who had been stricken ill. Dr. Donohoe returned about 20 minutes later.

The other speakers were Mr. Sluter, Mr. Drewen and Superintendent of Schools Smith, who joined in praising the guest of honor for his work in behalf of the community.

Dr. Donohoe, when called on by the toastmaster, said that he couldn't understand why so much praise should be bestowed on him. He declared that every man, woman and child who contributed to the building fund, as well as the directors and medical board, deserved credit.

"Building an institution of this type," he said, "is not something any one man could do. No one without the full coöperation, the best wishes and the heart felt support of everyone connected with the proposition could put it across."

The Faculty Trio, composed of Miss Fanny Halpin, Nunzio Pintauro and Aaron Axelrod, played several musical numbers, while Luke Moran sang several selections, accompanied by Robert L. McCusker.

Besides those at the speakers' table, others at the dinner included the following Directors: Philip A. Dwyer, W. G. Roberts, William A. Conway, William T. Cronin, Charles Grotsky, J. E. Johnson, Dr. Larkey, William Laubenheimer, Mr. McGrath, George H. Mettam, Dr. William A. Pinkerton, Horace K. Roberson, R. D. Rogers, Dr. George H. Sexsmith and Daniel P. Sweeney.

Other physicians present besides those already named were: Commissioner W. H. Axford, L .E. Dreary, A. C. Forman, Morris Frank, A. J. Molloy, W. W. Brooke, Maurice Shapiro, Morris Tepper, Ernst Thum, M. J. Weiss, Thomas S. Brady, Sydney S. Chayes, Frank Facciola, David D. Feinberg, L. F. Ferenczi, William Fifer, F. Finger, John W. Harvey, G. L. Higgins, Louis W. Klugman, Benjamin Lipshutz, J. S. Madaras, M. I. Marshak, Victor E. Maturi, Louis Meltzer, Joseph A. Murray, Louis E. Norwich, David Solomon, Leon J. Ward and William Wiren.

The Woman's Auxiliary

On several occasions we have reproduced in this department of the Journal reports of other state society auxiliaries and, this month, we take the liberty of quoting from the report of the President of the Woman's Auxiliary to the Colorado Medical Society, as it appeared in Colorado Medicine, December, 1928; doing this to show the far-reaching effects of introducing the magazine Hygeia into public schools.

"The State Auxiliary has stressed the introduction of Hygeia into the public schools, and has given 62 subscriptions to rural and remote schools throughout the state.

Where we have been able to check up, the results have proven worth-while.

Some rural schools have reported that Hygeia was the only literature they received, and that the children actually wore out each issue by daily use. Because they had so little time to teach health subjects in these schools where teachers had 3 and 4 grades to instruct, they did appreciate our gift.

Some teachers reported that they used Hygeia health articles almost exclusively for oral and written work.

The Auxiliary has given 15 subscriptions of Hygeia to rural schools that sold the greatest number of Red Cross Seals during the annual drive.

Shortly after taking office, the President got in touch with several county papers, and through their coöperation, the auxiliary has had more than 200 articles printed from Hygeia. The topics were selected in most instances by physicians, and were headed, "Printed from Hygeia, by courtesy of the Woman's Auxiliary of the Colorado Medical Society."

This message contains some suggestions applicable to our own auxiliaries; especially to those from counties the bulk of whose population is rural in character. We have noted in a number of county auxiliary reports submitted for publication that members have discussed the problem—"What Can We Do to Be Useful" or "to Maintain Interest in Our Meetings", but we have not observed adoption of any of the suggestions repeatedly presented by the Journal during the past year. We hope that every county auxiliary will busy itself at once in enlisting a full membership and then in tackling some of the opportunities for helpful work that rest at hand in every community.

Atlantic County

The election and installation of officers took place at a meeting of the Woman's Auxiliary to the Atlantic County Medical Society, at the Chalfonte Hotel, on Friday evening, December 14. Mrs. John F. Massey, the retiring President, was presented with a gift in appreciation of the work done during her term.

Mrs. Samuel Salasin was elected President; Mrs. Joseph Poland, First Vice-President; Mrs. D. Ward Scanlan, Second Vice-President; Mrs. Robert A. Bradley, Treasurer; Mrs. Lawrence Wilson, Recording Secretary, and Mrs. Maurice Chesler, Corresponding Secretary.

Burlington County

Reported by Mrs. William C. Wells

On Wednesday evening, November 21, the Woman's Auxiliary to the Burlington County Medical Society was delightfully entertained by the medical society at the Moorestown Community House.

The program of the evening was in charge of Dr. Marcus Newcomb, of Brown's Mills. The chief speaker of the evening was Dr. Daly, of McAdoo, Penna. Dr. Daly's talk, which was full of humor and pathos was keenly appreciated and enjoyed by all.

Dr. and Mrs. Howard Curtis, of Moorestown, arranged a most enjoyable musical program. A community song was one of the features. This was entered into with much enthusiasm. Dr. and Mrs. Curtis crooned a number of negro melodies which were very delightful. Mrs. Curtis also sang several solos accompanied by Dr. Curtis with the banjo.

After the entertainment there was dancing followed by a buffet supper.

Among the guests were Drs. Ephraim R. Mulford, President of the New Jersey Medical Society; Herbert M. Goddard, Philadelphia; Ralph Hollinshed, Westville; James Hunter, Jr., Westville; Chester Ulmer, Gibbstown; Busby, Swedesboro, and Marcus Newcomb, Brown's Mills.

This social evening arranged by the doctors for the auxiliary was a huge success. This was the first meeting of this kind in 20 years. A number of the doctors and their wives were present who had never attended a county society or auxiliary meeting before.

A similar reception is to be held in the spring.

Camden County

Reported by Mrs. T. P. McConaghy

A special meeting of the members of the Board of the Woman's Auxiliary to the Camden County Medical Society was held on Tuesday afternoon, December 11, at the home of the President, Mrs. A. J. Casselman.

It was with a great deal of pleasure, Mrs. Casselman reported, that through Dr. Mabel Grier Lesher, of Camden, no less and 3 appointments were being made for talks by Mrs. E. C. Taneyhill.

After the Treasurer's report was given, it was decided to hold a card party in January. The subject of unpaid dues was discussed and a special effort is to be made for the collection of dues for this year. It is hoped prompt returns will be made.

Gloucester County

Reported by Mrs. Henry B. Diverty

A meeting of the Woman's Auxiliary to the Gloucester County Medical Society was held at the Country Club on December 20, at 9 p. m., with the President, Mrs. James Hunter, presiding.

The speakers were: Dr. E. R. Mulford, President of the State Medical Society of New Jersey; Mrs. Mulford and State Auxiliary President-Elect Mrs. R. I. Downs. Stress was laid on periodic health examination and the magazine "Hygeia" was recommended to be taken and read, as a means of self education on how to keep well. Books, such as "Medical Follies", by Fishbein; "The Human Body", by Clendening; "The Doctor Looks at Marriage and Medicine" and "The Doctor Looks at Love and Life", both by Collins, are being read by the members.

It was decided to have, at the spring meeting, a speaker; followed by a social hour.

Later, the members accepted the invitation to join with the members of the County Medical Society for a social hour and refreshments.

Hudson County

Reported by Mrs. Harry J. Perlberg

November Meeting

The regular monthly meeting of the Woman's Auxiliary to the Hudson County Medical Society was held November 16 at the Y. W. C. A., Jersey City, with Mrs. William Friele presiding.

The committee, consisting of Mrs. William Freile, Mrs. Joseph Binder, Mrs. Peter Maras, Mrs. Charles Kelley, Mrs. A. E. Jaffin and Mrs. H. J. Perlberg assisted by the members of the society, reported that they had distributed 5000 placards for the antidiphtheria campaign. It was decided to inaugurate a membership drive to augment the membership of the society which has been considerably increased this year.

The donation made by voluntary contributions to the Red Cross Prenatal Class was acknowledged and as soon as the necessary materials are secured, this class will begin functioning.

A plan is under way to gather magazines and other literature to distribute among the various hospitals. In order to secure funds for more extensive endeavors, it was decided to hold a card party the third Friday in January, at the Y. W. C. A., under the direction of Miss Ann Hetherington who will be assisted by Mrs. Louis Perkel, Mrs. Peter Maras, Mrs. Charles Sirken and Mrs.. Largay.

After the business meeting the usual social hour was enjoyed with cards.

December Meeting

Reported by Mrs. Harry J. Perlberg

The regular meeting of the Woman's Auxiliary to the Hudson County Medical Society was held at the Y. W. C. A. Friday, December 21, with Mrs. William Freile presiding.

The members of the society were greatly disappointed in that Mrs. E. C. Taneyhill, Field Secretary to the Medical Society of New Jersey, was prevented by illness from attending the meeting at which she was to have addressed the members. It had been planned to entertain Mrs. Taneyhill at luncheon before the meeting.

The report of Miss Ann Hetherington, chairman of the card party to be held January 18, 1929, at the Y. W. C. A. of Jersey City, stated that the plans were being completed. The purpose of the bridge is to provide funds for the charitable activities of the society. Preparations in the way of prizes and refreshments are being made ready for a large number of members and their friends. From all indications the affair promises to be highly successful.

The society is endeavoring to collect discarded magazines for distribution among the hospitals. So far a considerable number have been received.

Mrs. George Culver, of Jersey City, read a paper on, "The Menace of Germs in Our Daily Life", in which she emphasized the necessity of strict observance of sanitary rules with reference to domestic proceedings. The paper was thoroughly enjoyed by the membership.

After the adjournment of the meeting, the usual social hour followed.

Mercer County

Reported by Mrs. F. G. Scammell

The Woman's Auxiliary to the Mercer County Medical Society met on Tuesday, November 13, at a luncheon meeting at the Carteret Club. The President, Mrs. John Sill, presided and in the absence of the Secretary, Mrs. Frank G. Scammell acted as Secretary pro tem.

The Secretary read the report of the meeting held on Monday, May 16, and the Treasurer, Mrs. Samuel Sica, reported that the following bills had been paid: E. H. Frenking, florist, $3.25; Hibbert Printing Company, $9.75; to the Treasurer state auxiliary for entertainment at the convention of the state medical society at Atlantic City in June, $5; also, a bill of $1.50 for decorating for luncheon.

Mrs. Sommer, delegate to the annual meeting in Atlantic City of the Woman's Auxiliary to the Medical Society of New Jersey, read an interesting report of that meeting.

Flowers were sent to Mrs. D. Leo Haggerty, our First Vice-President, and plans were completed for the making of surgical dressings for the various hospitals.

Those in attendance were: Mrs. J. J. McGuire, Mrs. C. Mitchell, Mrs. W. Madden, Mrs. F. G. Scammell, Mrs. A. S. Fell, Mrs. G. N. J. Sommer, Mrs. J. Sill, Mrs. L. Pierson, Mrs. S. Sica, Mrs. T. S. Mras, Mrs. R. E. Stone, Mrs. E. M. Rowan, Mrs. W. R. Little, Mrs. T. Proctor, Mrs. R. Franklin, Mrs. T. S. Graham, Mrs.

G. Barry, Mrs. F. S. Seibert, Mrs. J. O. McDonald, Mrs. W. Farmer, Mrs. G. P. Means, Mrs. E. B. Beairsto, Mrs. J. McCollough. Mrs. J. E. Hider, of Hightstown, N. J., was present as a guest of the auxiliary.

Salem County

Reported by Mrs. William H. James

The regular meeting of the Woman's Auxiliary to Salem County Medical Society was held at Memorial Hospital on December 12.

Election of officers for the coming year resulted as follows: President, Mrs. J. M. Summerill; Vice-President, Mrs. Franklin Church; Secretary, Mrs. William H. James; Treasurer, Mrs. Frank L. Perry.

A discussion was held as to ways and means of making the auxiliary meetings more interesting, so as to get the members to attend the meetings.

Somerset County

Reported by Mrs. Dan S. Renner

The Woman's Auxiliary to the Somerset County Medical Society was held at the Nurses' Home in Somerville, Thursday afternoon, December 13, at 3:30 o'clock; 11 members and 3 guests were present.

Routine business was transacted. Mrs. Edgar Flint, of Raritan, and Mrs. Josiah Meigh, of Bernardsville, were elected delegates; Mrs. J. Howard Cooper, of East Millstone, and Mrs. Clarence R. Kay, of Peapack, were elected alternates to the state convention which will be held in Atlantic City in June.

Mrs. George L. Orton, of Rahway, President of the Auxiliary to the New Jersey State Medical Society, told of the work of other county auxiliaries and suggested plans which this auxiliary might use.

Mrs. E. C. Taneyhill, Field Secretary for the New Jersey State Medical Society, explained the campaign which the state society is carrying on to rid the state of diphtheria by 1930. She urged the members to help in spreading medical education throughout the county, explaining that this can be done very effectively by placing the magazine "Hygeia" in schools, waiting rooms and libraries, that we might do this by creating for this purpose a fund to pay for the subscriptions. Again the members were requested to make a place on club programs for the health topics arranged by the state medical society. She also stressed the fact that in order to have a live organization it must meet at regular and frequent intervals, at least as often as the county society meets.

Dr. Lancelot Ely, of Somerville, Chairman of the County Committee for the Prevention of Diphtheria, gave a short talk, telling of his plans for carrying on the antidiphtheria campaign and said that the auxiliary could help by explaining it to their friends in any organization in which they might be interested.

This was one of the most enthusiastic meetings held by this auxiliary and the coming year bids fair to be a successful one.

After the meeting was adjourned, tea was served and a social half hour was enjoyed.

Union County

Reported by Mrs. H. V. Hubbard

At a meeting of the Woman's Auxiliary of the Union County Medical Society, held in the Nurses' Home of Overlook Hospital on October 17, it was voted to have printed a letter to be mailed to the wives of all the physicians in Union County. It was hoped the effect of this letter would materially increase membership of the Auxiliary. The committee composed of Mrs. H. V. Hubbard, Plainfield, Mrs. P. B. Cregar, Plainfield, and Mrs. F. A. Kinch, Westfield, gathered all information possible from reports of other auxiliaries in the Journal of the New Jersey Medical Society and from the state and national reports, as to reasons for existance of an Auxiliary, and why the women should join. As a result about 175 copies of the following letter were mailed in November, and several new members have already joined:

"Here are specific reasons why you should be an active member of the Woman's Auxiliary of the Union County Medical Society. Please consider them carefully and communicate with the Secretary without delay.

Doctors' wives organized as an auxiliary can be of real service to the Medical Profession acting as a medium between the profession and the laity.

A woman's organization can do much toward shaping public sentiment and changing the attitude of the public on health matters.

Organized, the women can have greater effect on legislative matters.

Through the Auxiliary, speakers can be brought before our clubs and the viewpoint of organized medicine presented in this way.

The auxiliary members may be able to see that the office of Chairman of Public Health in parent-teacher associations, and other clubs is filled by a physician's wife or one familiar with public health matters from a medical standpoint.

There is a social side to be considered. Doctors' families naturally have a bond of sympathy which the auxiliary will strengthen into many pleasant relationships.

If you are a busy woman do not hesitate to join. There are but 4 meetings a year, which occur the same evening on which your husband's medical society meets.

The dues are but $1 a year and give you an opportunity to be informed and partake in any great movement which may be of vital importance to the medical profession.

You will be notified of the next meeting. Please make an effort to be present.

As auxiliaries have been formed and are working in every state in the Union and every county in New Jersey, Union County needs you to give it 100% efficiency."

A pleasant social afternoon was spent by the members of the Union County Auxiliary in the home of Dr. and Mrs. George S. Laird, of Westfield, which was decorated with chrysanthemums and other fall flowers. There were 9 tables of bridge. After the games and dainty refreshments had been enjoyed, prizes were awarded to the following ladies: Mrs. Jones, Mrs. R. J. Thompson, Roselle Park; Mrs. C. H. Schlicter, Elizabeth; Mrs. W. W. Sisserman, Westfield; Mrs. J. E. Runnels, Scotch Plains; Mrs. H. V. Hubbard, Plainfield; Mrs. A. T. Drury, Roselle Park; Mrs. J. M. Hanrahan, Elizabeth, and Mrs. G. E. Galloway, Rahway.

The committee planning the party was composed of Mrs. P. B. Cregar and the ladies of Westfield who provided the beautiful prizes and the refreshments. The guests paid to play, so a goodly sum was realized and added to the treasury of the auxiliary.

County Society Reports

ATLANTIC COUNTY

Harold S. Davidson, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was called to order by its President, Dr. William C. Wescott, on Friday evening, December 14, at Hotel Chalfonte, at 8.30 p. m. The minutes of the previous meeting were read and approved.

The Secretary, Dr. Joseph A. Marcus, read a letter from the Secretary of the American Medical Association acknowledging the invitation from this County Society to have the American Medical Association meet in Atlantic City in 1930, which invitation will be submitted to the House of Delegates at the meeting in Portland.

A letter was also read from the Secretary of the New Jersey State Medical Society advising that any suggestion to alter the by-laws of the State Society should be submitted at this time.

Dr. Conaway moved that this society go on record as being entirely satisfied with the alterations already submitted.

A letter was read from the Secretary of the Gloucester County Medical Society, advising us that 3 delegates had been selected to represent their society at our meetings for the coming year. The following 3 men were elected to the Gloucester, Cape May and Camden County Society meetings for the coming year: Drs. Walt P. Conaway, C. C. Charlton and Milton S. Ireland.

Request was read from the Burlington County Medical Society to transfer Dr. A. M. Smith, who is in good standing in that society, to the Atlantic County Society. This application was referred to the Board of Censors.

Dr. W. Blair Stewart, reporting for the Public Health and Sanitation Committee, summed up the work of his committee for the year. He stated that certain debasing pictures, which are not in any way educational, have been shown at local theatres which claim to have the endorsement of the medical profession. Dr. Stewart pointed out how necessary it is that this should be discouraged.

The Society ordered a vote of thanks to Dr. Stewart for his tireless work throughout the year.

Dr. H. O. Reik, Editor of the State Society Medical Journal, complimented this society on the excellence of its work throughout the year. He states that there have been many changes in the legislators as a result of the recent elections and, since there will be many bills introduced by the chiropractors and other cults, it is necessary for us to use our influence with these legislators in the right way.

He invited all to participate in the Health Talks that are being broadcast over WPG.

Dr. Conaway moved, and it was duly seconded, that this society hire a paid reporter to take down transactions and scientific papers at these meetings.

Scientific Program

Miss L. Trewick, of the Visiting Nurses Association, gave a very interesting bag demonstration of the technic used by this service in caring for patients in their homes.

Dr. Clyde Wilson Collings, Instructor of Urologic Surgery, Bellevue Medical College, New York University; Chief of Urologic Clinic and Visiting Urologist to Bellevue; Consuling Urologist to St. Joseph's Hospital, Far Rockaway, N. Y., gave a paper on "Electric Excision of Prostatic Bar", with motion pictures.

Dr. C. H. Shivers congratulated Dr. Collings on his success with the electric excision of the prostatic bar. He stressed that this operation is under the eye at all times and there is a lack of secondary bleeding. In carcinomatous bar only temporary relief is obtained, but this procedure can be repeated until finally an open operation is necessary. Dr. Shivers stated how necessary it is to first determine the type of obstruction, and cited cases of his own.

Dr. Carl Scott spoke further on Dr. Colling's work, which he himself has watched. He formerly used the punch operation, which resulted often in serious hemorrhage and where you could not tell just how much tissue was removed; whereas, in Dr. Colling's operation you can actually see what you remove.

Dr. Thomas D. Taggart spoke on the excellence of the moving pictures which show the technic better than any word picture can tell.

Dr. Stanley McGeehan stressed how much improved Dr. Colling's operation is over the old blind methods of removing obstructions of the prostatic bar.

Dr. Joseph Poland asked if radium has any place in this operation, where the prostate is carcinomatous.

Dr. C. C. Charlton described how the electrothermic cautery is used in the nose and throat work as well as genito-urinary work.

Dr. Collings, in closing, cited the case of 1 patient where he had excised the subtrigonal glands by this method and while it reduced the residuim to 4 or 5 oz. and did improve the patient some, it was not the method of choice.

General Staff of the Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The regular monthly meeting of the Atlantic City Hospital Staff was called to order at 8.30 p. m. in the Nurses' Auditorium, by President D. Ward Scanlan.

Dr. Milton S. Ireland, Chief of the Obstetric Division, reported his service extending over the months of May, June, July and August, 1928.

The total number of births was 75, 47 males and 28 females, which is a disproportion, as a rule there being a more or less equable division; 64 cases were delivered in a more or less normal manner, without previous interference, 3 cesarian sections, 3 breech presentations, 2 versions, 3 forceps applications; 1 set of twins was delivered and progressed in a normal manner, as well as a premature infant which was placed in the incubator.

Dr. Samuel Goldstein, Resident Physician, presented the case of an infant, a deficiency disease "Tetany and Rickets", with an associated infection of the upper air passage due to a parenteral infection, undermining the nutrition of the child. The history follows: Baby H. S., colored, male, 6 months of age, was first seen in our dispensary June 10, at 8 a. m. He had a temperature of 102.2° and was examined by the resident, and admitted to the pediatric ward. A cold in head for the past few weeks but otherwise seemed normal, with exception of being underweight. At 3 a. m. the morning of admission he began to make a funny noise as if he couldn't get his breath.

He then became stiff, his face turned darker and he had a true convulsion. His mother placed him in a hot mustard bath which ended the convulsion, but at irregular intervals spasms recurred lasting 1-4 minutes. Seemed very drowsy; refused feeding; stools greenish and contained mucus. Three other older children all in good health.

Past history. Infant had ophthalmia neonatorum; was circumsized at age of 1 week; breast fed from beginning; and received no cod liver oil and no orange juice.

Physical examinations. Male, colored infant, 6 months of age, weight 13 lb. 4 oz.; birth weight 7 lb. and now 3 lb. underweight. Typical block head of rickets. Anterior and posterior fontanelles bulging and open; craniotabes. Slight rigidity of neck. Rounded thorax; rachitic rosary. Suggestion of positive Kernig's sign. Tongue coated; tonsils enlarged; adenoids noticeably enlarged; Pharynx markedly injected.

Spinal puncture; fluid clear, acellular, but under pressure. A tentative diagnosis of tetany was made and blood was taken for calcium test on the third day. On this same day the infant had a convulsion in the hospital, demonstrating typical carpo-pedal spasm. No Chvostek's sign could be elicited; Trousseau's sign + +.

Blood calcium showed 4.5 mgm. percentage.

The other routine laboratory procedures were done. Wasserman negative; Kahn negative. Blood count showed 3,500,000 red cells; 60% hemoglobin; 10,950 leukocytes; polymorphoneuclear 24%, small lymphocytes 77%.

The infant was put on whole milk and water, half and half; and dextrimaltose 1½ oz. The formula was gradually increased both in quality and quantity. Cod-liver oil was given daily, and also orange juice. Ultra-violet radiation over entire body daily. In 18 days, under these general measures, the blood calcium rose to 9 percent, approximately normal.

During this time, had gained in weight from 13 to 14 lb. 6 oz., and was discharged as markedly improved July 2, 1928.

On August 2, patient was again brought to dispensary and admitted to ward this time with a temperature of 101.4° and a history of very large amount of nasal discharge and difficult breathing of 3 days' duration. Examination of chest was negative, except some coarse râles which were definitely established as being referred from upper respiratory passages. Weight on admission this time was 14 lb. 14 oz.

The infant was started on a feeding plan similar to previous one. Medication was given to lessen the large amount of thick nasal discharge. The temperature range was from 101° to 105°. Infant refused feeding and did very poorly for the next few days.

Dr. C. C. Charlton was asked in consultation, and made a diagnosis of "pansinusitis with greatest involvement of the ethmoid; also hypertrophied and infected adenoids as the primary focus of the infection". Patient was treated for 20 days with saline irrigations and local applications by Dr. Charlton. When the acute process had subsided and the child started to improve another white and differential count was done: leukocytes, 6800; polymorphoneuclears, 49%; small lymphocytes, 48%; eosinophiles, 2%; transitionals, 1%. Adenoidectomy was done under chloroform anesthesia. Post-operative convalesence uneventful. About a week later, September 10, the child was discharged as recovered. Weight on discharge 16 lb. 1 oz. Child can now stand and tries to walk, makes an effort to talk, which, however, can be interpreted only by its mother, and weighs 21 lb. 14 oz.

Dr. Joseph H. Marcus, Chief of the Pediatric Service, presented his report for 6 months, January to March and July to September. The patients admitted ranged from 7 days to 13 years of age and, as usual in the absence of pronounced epidemics, there were a perponderance of respiratory cases during the winter months and a large percentage of gastro-intestinal cases during the summer months.

Pediatric Department

Dr. Marcus presented a statistical report which comprised 110 cases, with a mortality of 10%.

Gastro-Enterospasm of Infancy. Every physician is familiar with the infant who is abnormally wakeful, and who cries from late in the afternoon till well toward midnight. Among the laity it is known as "three-month's colic". There is, at times, evidence of abdominal distention and undue amount of gas. The infant may cry during nursing, and seem definitely uncomfortable. There are visible gastric and intestinal patterns due to hyperperistalsis, but no true peristaltic wave of the stomach alone. The vomiting may appear at the same age as that of pyloric stenosis, but not so soon after feeding. It may be a simple regurgitation, or of the mild projectile type, and there are periods of remission. The emptying time of the stomach may be intermittently delayed, but there is no constant pyloric obstruction. When the barium meal is given it may rapidly pass the pylorus. The stools may be undigested and loose, normal or constipated; varying in the same infant. Nutrition is not markedly disturbed. Usually weight remains stationary for weeks, or during remission the gain is normal. Certain cases have marked general tonic spasm, with characteristic backward bending of the head and flexion of the extremities. These infants are usually precocious and react unduly to noises and fright.

The infant should be kept undisturbed, except for regular feedings which, as a rule, should be reduced to 5 in 24 hours. The vomiting, constipation, crying and sleeplessness are sometimes benefitted by replacing 1 or 2 of the breast feedings with buttermilk or protein milk; the buttermilk to be mixed with an equal amount of thick cereal and fed with a spoon; a few spoonsful may also be given after each nursing. Atropin in sufficient doses will relieve nearly all cases of true gastro-interospasm, both as regards the vomiting and general hypertonicity. Small doses may be of no benefit. There is much unwarranted timidity on the party of physicians, nurses and the family in the administration of this drug. Some infants show flushing of the skin with small doses, but this is not injurious nor dangerous. If a 1:1500 or 1:1000 solution is used the dose may be carefully increased so that one need not fear serious idiosyncrasy. Hamburger reported a 5-month old infant, weighing 7 lb., that tolerated (1/46 gr.) without any effect upon the pupils; Schloss has administered 1/25 gr. daily.

A useful and careful technic in administering atropin is in solution—atropin sulphate ¼ gr. in ½ oz. distilled water; dosage is begun with 1 drop before feedings: 2 drops at a dose on the second day, and increased daily until the desired effect is secured, it often being necessary to reach 5, 6 or 7 drops. An important point to remem-

ber is that continued administration is necessary to keep the child comfortable and free of vomiting. After a few weeks of relief the drug may be left off, to be begun again if symptoms return. One should watch for untoward effects of the drug.

Promiscuous handling by excited members of the household is to be avoided, as this reacts upon the infant. The mother has usually become tired and nervous and should be relieved of care of the child; assistance of a nurse is helpful, and she should be of a quiet and not easily disturbed temperament. Much benefit will result if the child be taken outdoors for air, sunshine and sleep.

Scurvy. This condition should always be suspected when babies lose appetite, fail to gain in weight and are losing color, especially if they are taking pasteurized, boiled or dried milk or one of the proprietary foods containing an alkali. It should also be considered as a possibility even when babies are on the breast or taking raw milk. If there is slight edema of the extremities or eyelids or an increase in the pulse rate and respiration with, perhaps, slight exaggeration of the knee-jerks, the diagnosis of scurvy is still more probable. It can be made positively, however, only by giving an antiscorbutic and observing the results. Improvement is immediate, if the underlying trouble is scurvy.

In the type in which there is pain, swelling and diminution in use of the extremities, the most common mistake is attributing the symptoms to rheumatism, which almost never occurs in infancy. If it does, it is almost never accompanied by these signs. Rheumatism is usually accompanied by fever, scurvy usually is not. Rheumatism is not accompanied by swelling and discoloration of the gums, hematuria and ecchymoses. One or more of these signs is usually present in scurvy.

Periosteitis and osteomyelitis are also sometimes thought of because of the swelling and tenderness in the extremities. In these conditions the trouble is almost always limited to one extremity and usually to one bone. The tenderness is more sharply localized. In periosteitis there is often superficial heat and redness. In scurvy the swelling and tenderness are almost never limited to one extremity and are usually present over several bones; and there is no superficial heat or redness. Edema is more common in these conditions than in scurvy, but may occur in both. The temperature is always high in these diseases, but it may also be high in scurvy. The general condition is much worse in these conditions than in scurvy. They always have a marked leukocytosis and are never accompanied by other signs of scurvy, such as swollen and purple gums, hematuria and ecchymoses. The onset in them is usually much more acute.

When there is much swelling and it is, as sometimes happens, more marked in one extremity than in the other, scurvy may be mistaken for sarcoma of one of the long bones. Such a mistake should not be made, however, because there are always other evidences of scurvy in the extremities or elsewhere in the body. Examination with the Roentgen rays will settle the diagnosis at once in this as in many other of the conditions which are mistaken for scurvy.

Hip disease is also often thought of, because of the apparent tenderness about the hip and failure to use the legs. Tuberculous hip disease is very unusual at this age; and limitation of motion is in the hip joint and the swelling, if present, is in or about the joint, not over the lower portion of the diaphysis of the femur; is usually unilateral and is not accompanied by other signs of scurvy.

Scurvy is often mistaken for Pott's disease, because of apparent tenderness in the back, on handling, and failure to use the extremities. Tuberculosis of the spine is, however, very unusual in infancy. Passive motions of the spine are limited, there is usually deformity of the spine, and almost invariably psoas contraction.

Scurvy is often mistaken for an "injury", because of the pain on handling and motion, and failure to use the extremities. This mistake is especially likely to be made when onset of symptoms is acute. Too much importance is attributed to the history of a fall, strain or injury of some sort, which can be elicited by suggestion and cross questioning in every case. No confusion should arise, however, if the symptomatology of scurvy and that of the various injuries under consideration are carefully borne in mind.

Various forms of paralysis, especially infantile, are often considered on account of the apparent loss of power in the extremities. Failure to use the extremities in infantile paralysis is due to a real loss of power; the extremity is flaccid and usually not tender. In scurvy, failure to use the extremity is due to the pain which motion causes. It is held rigidly, is tender, and passive motions cause pain. There is never swelling in paralysis; there often is in scurvy. The onset of infantile paralysis is sudden; that of scurvy slow. Multiple neuritis has a more general distribution, almost never occurs at this age, is accompanied by wasting, never by swelling, and never by any other signs of scurvy.

In the type of scurvy with swelling and discoloration of the gums, the most common mistake is to attribute the symptoms to difficult dentition. It is hard to understand how this mistake can arise, when the swelling and discoloration develop, as they usually do, about teeth which are only partially erupted. The color of the swelling and the peculiar sponginess of the gums, in scurvy, are entirely different from conditions seen in difficult dentition, in which the gums are tightly swollen over an unerrupted tooth and bright red in color, while in scurvy the gums are swollen about a tooth, the swelling is soft and spongy and the color dark purple.

The type beginning with hematuria is almost never recognized, because most physicians are unaware that hematuria may be the earliest and only symptom of scurvy. Hematuria is a rare condition in infancy except as a manifestation of scurvy. If the urine contains only blood and shows none of the other evidences of acute nephritis, the affection is probably scurvy. Even if there are a few cells and casts, the chances are that, unless the condition has immediately followed some acute infection, it is scurvy. It is usually impossible to make the diagnosis between hematuria due to scurvy, if it is the only symptom, and that due to other conditions, without the therapeutic test; that is, administration of an antiscorbutic.

Scurvy is sometimes mistaken for other conditions, when special symptoms are unusually prominent. When there is exophthalmos as the result of a hemorrhage into the orbit, the other evidences of scurvy are often overlooked and a diagnosis if sarcoma made. When there is hemorrhage from the gums or the ecchymoses are unusually marked, scurvy is often mistaken for purpura. Occasionally, when anemia is especially

prominent, the characteristic scorbutic manifestations are overlooked and a diagnosis of some severe type of anemia is made. All of these mistakes are avoidable, if a careful physical examination is made and the possibility of scurvy as an explanation is kept in mind.

Congenital Lymphangiectatic Edema. This occured in a female infant, aged 15 months, whose brothers and sisters are normal. The outstanding feature presented by this baby is a symmetric enlargement of the upper and lower extremities involving the left side, also including the tissue in the region of the external genitalia, enlargement being approximately twice that of the normal side.

Treatment of this condition is extremely unsatisfactory and in reviewing the various methods and procedures advocated the results are found to have been disappointing. The following have been advocated: Massage, the distal stroke being used. Elastic bandages applied by specially tapered bands; radium treatment; Roentgen rays and deep therapy treatments; course of theobromin sodiosalicylate, 3 gr. t.i.d.; thyroid extract; and, surgery has been advocated by some writers.

Just what etiologic factors are responsible it is difficult to state. No positive opinions can be gleaned from the literature, although many theories have been advanced and certain conclusions drawn from clinical and pathologic evidence. Many of the text-books on pathology and pediatrics make no mention of this form of edema. Others offer meager description. Von Reuss states that some forms are probably caused by the congestion that follows intra-uterine constriction by amniotic bands, and in these cases transverse furrows mark off the elephantiasic portions from the healthy parts. In other cases, there appears o be a simple hyperplasia of the connective tissue due to some morbid predisposition of inherent defect. This view is further strengthened by the occurrence of elephantiasis in families and by its association with other malformations in the same infant. According to Ballantyne, the term congenital elephantiasis has been widely and loosely applied to all hypertrophic or hyperplastic states of subsutaneous tissues that may be present at birth; included also are the soft and cystic varieties and the localized hard and soft types (congenital elephantiasis neuromatodes) but he confines himself to the hypertrophic thickenings of the subcutaneous tissue of one or more limbs or parts of the body which is found at birth. In the restricted sense, the condition is hyperplasia of the subcutaneous tissue, with special involvement of the lymphatics.

The case just cited, and others scattered throughout the literature, show a variety of conditions more or less similar and covered by the diagnosis of congenital elephantiasis. Many of these would appear to be much better placed as true neoplasms or as examples of gigantism. True cases of congenital lymphangiectatic edema, it would seem, are of rather rare occurrence. The case that we have reported is, we believe, one typical of this fortunately rare condition. In considering the etiology, we venture the opinion that this disease is due to a congenital anomaly of the lymphatic system. There is no evidence or reason to invoke any hypothesis such as placental disease, amniotic bands or infections.

The above presented cases were discussed by Drs. C. C. Charlton, W. J. Carrington, W. B. Stewart, C. L. Andrews and L. M. Walker.

BERGEN COUNTY

S. T. Snedecor, M.D., Reporter

The Bergen County group met at the Hackensack Hospital in December.

The wholesome state of the treasury was shown by Dr. Sarla's balance of $1154.97.

The Knickerbocker Adjustment Service came in for discussion. Dr. Chester A. King said that little progress had been made toward settlements. The company has sent out statements to many of the physicians since this uproar was started but no one has as yet received any cash. Dr. King will confer with counsel about further action. The nominations for officers were given by Dr. Corn, Chairman of the committee: President, George M. Levitas, of Westwood; Vice-President, Edward C. Clark, of West Englewood; Secretary, Spencer T. Snedecor, of Hackensack; Treasurer, Michael Sarla, of Hackensack; Reporter, Charles Littwin, of Palisades Park; Annual Delegates, Charles Knox, R. E. Knapp, C. N. Dezer, Herman Trossbach.

Drs. H. B. Wolowitz and S. T. Snedecor reported for the Committee on Public Relations: Advertising campaign began this past week in the county newspapers, the first advertisement explaining the policy of the society in placing authentic health information before the public; consideration and understanding of the physician, advancement of periodic health examinations, antiquack suggestions, are some of the thoughts to be worked in; advertisements will run weekly for 6 months in 3 newspapers covering the whole county.

Dr. Snedecor raised the question—"How may a patient know an honest ethical physician?" In answer to this, the committtee was authorized to adopt the emblem of the A. M. A. as the official seal of the society to use with future advertisements; a suitable certificate, or placque, with this emblem is to be made up for each member of the society to have in his waiting room.

The antidiphtheria campaign is making excellent headway, reported Dr. Joseph R. Morrow; more than 2500 school children have been inocculated in Hackensack; in Bogota a large percentage, reaching 95% in the parochial school, and similar statistics are coming in from all over the county.

The Visiting Nurse Service of Hackensack, asked for endorsement and appointment of an advisory committee of physicians. Because of the lateness of the hour this was deferred until next meeting.

First on the program came Dr. Wilson D. Webb, of Hackensack, with a short sketch entitled "High Lights of the Recent Post-Graduate Assembly at Atlanta". Dr. Webb emphasized the enormous educational value of the meeting, attended by 3500 doctors and addressed by leaders of the profession.

The speaker of the evening was Dr. Andrew F. McBride, First Vice-President of the Medical Society of New Jersey and Commissioner of Labor. He spoke on "Compensation" and its realtion to physicians and hospitals. In detail he took up 6 possible situations and complications that might arise. In the main, he explained, most of the difficulties of physicians are due to their own mistakes and unfamiliarity with the law; he expressed the wish of his department to coöperate with physicians in every way possible; and, finally, he promised to insti-

tute informal hearings on compensation cases in Hackensack before his term of office expires. This was a concession the society has been seeking for some time.

CAMDEN COUNTY

R. E. Schall, M.D., Reporter

The regular monthly meeting of Camden County Medical Society, on December 11, was called to order by Dr. VanSciver. After the regular routine business was transacted, a very instructive and interesting talk on "Some of the Commoner Dermatoses", by Dr. Edward S. Corson, was enjoyed by all present.

The parasitic diseases are animal and vegetable and most common of the first type is scabies or itch. This is a contagious eruptive disease, characterized by great itching, especially immediately after retiring. It is known as the 7 year itch or Philippino itch, according to where it is picked up. It affects all races alike. Usually comes first on the hands and appears as little vesicles, papules and pustules. It never appears above the collar in adults. It is seen between the fingers, on the wrists and flexor surfaces; around the nipples on the female; and the shaft of the penis on the male. It may be seen on the face of a nursing infant, contracted from the mother's breasts in nursing. The disease is unlimited and runs on continuously if not properly treated. The itching is nocturnal; it seldom itches through the day unless the patient is overheated. Diagnosis is determined by finding the insect between the fingers or on the axillary surfaces; it can be brought out more plainly by applying ink and wiping it off with alcohol; the ink is drawn into the insect by capillary action and remains while the surface is cleaned by the alcohol. Urticaria and eczema must be differentiated from scabies. The treatment is purely external. We have 3 or 4 drugs at our command but sulphur is the most effective. All members of the family should be treated at the same time, for 4 days in succession, and all clothes and bed clothes that come in contact with a patient should be thoroughly boiled before washing.

The second and most common parasitic disease is impetigo, which begins as a small papule, then a vesicle, terminates as a pustule and develops a yellowish brown crust which lifts off easily and leaves a pinkish surface. In the infant we get a pemphigus neonatorium. Impetigo may die out if let alone but usually requires treatment; 2% gentian violet, or ammoniated mercury, 2-6%.

Ringworm is the third parasitic disease and has a tendency to annular or circular shape. Animals are frequently the source of this infection. Tinea circinata or ring worm: We find a great many cases of intertriginous ring worm where 2 surfaces of the body come together, as between the toes. Tinea tonsurans, or ring worm of the scalp, occurs in infants and is usually thrown off as the child attains puberty. In adults we may find the infection in the bearded regions and around the nails. First remove the brittle hairs or nails, then use salicylic acid ointment or x-rays.

Dr. Corson showed a number of lantern slides that were very interesting and instructive.

Drs. Decker, Lewis and Davis took part in the discussion.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter.

Dr. E. R. Mulford, of Burlington, President of the New Jersey Medical Society, was a guest at the regular meeting of the Gloucester County Medical Society, held at the Woodbury Country Club.

The principal address was given by Professor A. C. Morgan, of the University of Pennsylvania, who spoke on "The Treatment of Acute Cardiac Tragedies". The address proved of considerable interest to the large number of physicians attending the meeting.

Members of the Woman's Auxiliary enjoyed the dinner with the Medical Society.

Among the doctors present were: Livingood, Downs and Busby, of Swedesboro; Sheets and Sinexon, of Paulsboro; Hunter and Hollinshed, of Westville; Stout, of Wenonah; Chalfant, of Pitman; Pedrick, of Glassboro; Ulmer of Gibbstown; Underwood, Pegau, Campbell and Diverty, of Woodbury.

HUDSON COUNTY

M. I. Marshak, M.D., Reporter

The Hudson County Medical Society met at the Cartaret Club, Jersey City, on December 4, with Dr. W. J. Sweeney presiding.

Dr. Murray Bass, Associate Pediatrician at the Mt. Sinai Hospital of New York City, read the paper of the evening on "So Called Acidosis in Children". Acidosis is a condition of disturbed metabolism and not a disease. It is, therefore, not a complete diagnosis; a preferable term to use in describing this condition is "ketosis".

After describing the chemical reactions occuring during health and disease, Dr. Bass stated that ketosis was either due to lack of proper excretion, as in nephritis, or to formation of the abnormal ketone acids which accompany certain diseases. Some children have a predisposition to this condition on the least provocation, and it seems to run in families. The symptom-complex consists of vomiting, prostration, acetone on the breath and in the urine, hyperpnea, irregularity of respiration, air hunger, dull sensorium, coma and death.

When diagnosing this condition, one must look for the underlying disease. It frequently accompanies anterior poliomyelitis and is probably due to disturbed metabolism or to excessive vomiting. Gastro-enteritis is also a frequent antecedent.

The present method of treatment consists mainly in the use of glucose. In mild cases, insure the intake of sufficient water and carbyhydrate in the form of glucose or cereal. A half ounce of glucose in a glass of iced water given in dram doses every few minutes, if the stomach retains it; if not, a 10% solution is given per rectum by Murphy-drip. At times it may be necessary to use a codein suppository to help retain the fluids. If necessary, the solution may be given intravenously or by hypodermoclysis. It must be given slowly about 7.5 c.c. per minute. In infants, saline solution might be injected into the peritoneum. For severe cases, give fairly large doses of sodium bicarbonate by mouth. Milk, eggs, butter, cream and other fatty substances must be avoided. Very severe cases require the use of glucose and insulin intravenously under laboratory control.

Attacks can be prevented in susceptible children by diet; caution against infection, especially grippe; preventing excitement by parties, movies or too much wild play; mild catharsis with milk of magnesia and biweekly rectal irrigations of sodium bicarbonate. The diet should be of a low fat, high carbohydrate type. No cream, and eggs only 2-3 times a week. Sudden withdrawal of carbohydrate may bring on an attack, while starvation even for a few hours may cause the symptoms to appear.

If these patients need operations, they should have no preparatory starvation and must be given glucose solution per rectum before operating.

Drs. Rosenstein, Stein and Bass discussed the paper.

Osler Clinical Society

M. I. Marshak, M.D., Reporter

November Meeting

The Osler Clinical Society met at the Union League Club, November 21, with Dr. J. L. Rosenstein presiding.

Dr. E. A. Jaffin presented 2 clinical cases. The first was for diagnosis. The patient was a male, aged 51, who complained of repeated attacks of chills with local swellings in the lower extremities associated with a rash and occasional blebs. The onset was always accompanied by nausea. There was a history of these attacks over a period of 4 years, with more frequent bouts since June, each lasting a few days only. Examination showed redness and edema of the left leg and thigh with a bleb over the patella and ulcerations between the toes. X-rays showed no bone nor periosteal changes. The general clinical examination was negative, though the patient was sallow. Marked dermatitis and fissures were present between the toes, with itching, moisture and a foul odor. The diagnosis eventually made was ringworm infection between the toes with recurrent attacks of erysipelas.

The second was a case of pellagra which he saw in the Jersey City Hospital. The chief complaints were pharyngitis, stomatitis, glossitis, chronic gastro-enteritis with diarrhea, loss of memory, general carelessness and lack of judgement, and a desquamating dermatitis of both hands as well as a marked hyperesthesia of both legs. There was no paralysis and the knee-jerks were exaggerated. The patient slowly improved on general and diatetic treatment.

Drs. Brooke and M. Shapiro discussed these case presentations.

Dr. E. G. Waters read the paper of the evening on "Intestinal Obstruction; Present Day Conception and Rationale of Treatment".

Intestinal obstruction is a condition in which fecal movement is impeded or prevented, either by partial or complete, acute or gradual occlusion of the bowel lumen, or by paralysis of the bowel musculature. The paralytic form may be reflex or toxic. Mechanical obstruction is due to blocking from within or to constriction from without by bands or pressure by masses, or due to volvulus, intussusception or hernia.

The majority of organic obstructions are found in men and over 80% are of the small intestine; 2/3 of these are in the iliocecal region. Shock, toxemia and early peritoneal infections complicate the picture when to the mechanical factor is added interference with the blood or lymph circulation of the bowel or the mesentary or both. Abdominal pain, vomiting, obstipation and shock are the characteristic symptoms. In small intestine obstruction the symptoms are more severe than in those of the large bowel. Acute enteritis with colic, occasionally mucous colitis, ruptured gall-bladder acute hemorrhagic pancreatitis, perforated gastric ulcer, ruptured tubal pregnancy, strangulation of pedicled tumor, mesenteric thrombosis, and appendicitis with peritonitis are sometimes mistaken for intestinal obstruction. As these practically all require surgical aid, the error in diagnosis does not deny the patient proper treatment.

When studying these cases, one must not lose sight of the possibility of alkalosis, as it is an important factor in a fatal termination.

Intussusception is the commonest cause in children, while stangulation or obstruction by bands or incarcerated hernias comprise most of the organic lesions in adults. In the aged, fecal impaction and carcinoma are important causes. Prognosis depends on the nature of the obstruction and the time interval between its production and relief. A fatal toxemia can result in 24 hours if there is death of a bowel segment.

Treatment. Pre-operative gastric lavage, enemas, parenteral administration of fluids and conservation of body heat, as well as the use of sodium chloride before and after operation are essential. Regional or spinal anesthesia are the safest forms. Operation depends on the nature and site of obstruction, viability of the intestine, and the patient's general condition. If marked toxemia is present a simple enterostomy will often save a hopeless appearing case.

The enterostomy is usually performed above the site of obstruction. Postoperative treatment consists of parenteral administration of fluids, salt and glucose.

Drs. Freile, Miner, Brooke, H. Franklin, Londrigan, Cosgrove and Jaffin discussed the paper.

December Meeting

The Osler Clinical Society met at the Union League Club, Jersey City, on December 19, with Dr. J. L. Rosenstein presiding.

Dr. Louis Franklin described a case of "Torsion of the Omentum". The patient was a female, aged 28, who had 2 children normally. She gave a history of abdominal pain with obsterpation lasting over a period of 5 days. Examination showed abdominal distension and tenderness with spasm of the lower recti. There was no evidence of peristalsis. Temperature 101.5°, pulse 112; 12,000 white cells with 78% polys. Pre-operative diagnosis was ruptured appendix with abscess. Operation under ethylene disclosed a dark fluid, also a dark mass which when delivered proved to be the large omentum with 3 twists. This was removed and the patient made an uneventful recovery in 12 days.

This case report was discussed by Drs. Dickinson and Bartone.

Dr. Alexander Louria gave the talk of the evening on "Pitfalls in Diagnosis". This was presented in the form of case experiences.

Case 1. Ten days before admission to hospital, the patient, a middle-aged male, had his first attack of precordial pain, which was followed by dyspnea and palpitation with recurrence of pain over the heart. The blood pressure before the attack had been 190/90; after the attack it was 90/60. Electrocardiogram showed severe myocar-

dial damage. The diagnosis was coronary thrombosis. Patient died 5 days later. The death was sudden, in the midst of an attack of agonal pain. Autopsy showed good coronary vessels, extensive fibrosis of the myocardium and arteriosclerosis.

Case 2. Following a mild attack of grippe, the patient developed a severe persistent headache localized to the right side of the head, projectile vomiting, diplopia, strabismus and rigidity of the neck. There were no objective physical findings. The diagnosis was influenzal encephalitis. Spinal tap produced a clear fluid under pressure, containing no globulin, an increased number of cells, and a high sugar content. There were 120 cells per cubic centimeter, all of which were lymphocytes. The fever was irregular—99° to 104°. Later a soft, apical, systolic murmur developed and a blood culture showed Streptococcus viridans. Other signs developed later, proving the case to be one of bacterial endocarditis with emboli. Localized upper lobe lesions in the course of influenza and pulmonary syphilis are difficult to differentiate from pulmonary tuberculosis as the signs and symptoms are so alike.

Case 3. Male, aged 40, had a persistent cough, fever, night sweats, and loss of weight. Diagnosis of tuberculosis was changed to cancer of the lung after further study. He later developed painful swellings over the forehead and mastoid. These were soft in the center, and tender, and were accompanied by dull headache, worse at night. These lesions in the skull were suspected of being malignant or syphilitic. An incision showed no distinct specificity. Wassermann taken at this time was returned 4+. After intensive mixed therapy, the patient recovered.

Case 4. Onset with sudden chill, fever, aches and pains, with severe prostration. Diagnosis of influenza. Examination showed an intense engorgement of the fauces with an exudate which on removal left a bleeding surface, a cervical adenopathy, a palpable spleen and a few scattered râles in both lungs. Blood examination disclosed 17,000 white cells with 93% myelocytes. Acute leukemia was now diagnosed. Autopsy showed a distinct myelocytic infiltration of the tonsils and cervical glands with numerous areas throughout the liver. The spleen was enlarged and firm. Blood cultures gave a positive growth of Staphylococcus aureus.

Case 5. This was of the same type as case 4 but had 120,000 white cells with 85% lymphocytes. At autopsy, the cervical axilary glands were found enlarged with lymphocytic inflammation. The spleen showed areas of engorgement with broken down blood cells; the liver was normal. Blood culture produced a growth of Staphylococcus aureus and various streptococci.

Case 6. A female complained of recurrent painless hematuria of 7 years' standing accompanied by a persistent hypertension with blood pressure of 250/140. Examination disclosed moderate cardiac enlargement, no abdominal masses, and no tenderness of the kidneys, which were not palpable. The bladder was negative on cystoscopy. Ureteral catheterization gave a normal urine from the right ureter and blood from the left. Pyelography showed no abnormal pelvic shadows. On operation, a normal-appearing kidney was found and, after discussion, removed. On section, a minute hypernephroma was found.

Case 7. A woman having painful hematuria, with intense bladder pain and tenesmus. X-rays showed apparently normal kidney shadows. The general physical examination was negative but pelvic examination disclosed a fixed uterus about the size of a 3 months' pregnancy. On cystoscopic examination, the trigone was intensely congested; probably due to pressure. Hysterectomy was performed and the patient recovered.

Case 8. A child, aged 12, with an irregular fever between 99° and 105°, and an intensive pyuria. Four weeks before admission to the hospital she had a sore throat and was in bed for 5 days. Two weeks later she fell and struck her right arm with a resultant painful bruise. The arm was extremely tender to touch. X-rays of this condition showed an osteomyelitis of the humerus, which was incised and the pyuria disappeared.

Case 9. A male, aged 45, had chills every other day which were not relieved by quinin or arsenic therapy. Examination showed emaciation, furred tongue, and one enlarged tonsil. The spleen was enlarged, moderately firm and not tender. Widal was negative as were blood culture and sarologic examinations. The urine contained numerous motile bacilli which on culture proved to be typhoid bacilli. The right kidney urine showed pus and contained this organism while the left kidney urine was normal. A diagnosis of nephropyelitis of the right kidney with abscess was made. This was incised and drained, and the patient recovered.

Drs. Marshak, VonDeesten, Jaffin, Dickinson, H. Franklin, Nalitt and Rosenstein discussed these presentations.

North Hudson Hospital Clinical Society

J, Africano, M.D., Reporter

The regular monthly meeting was held at the hospital Tuesday, December 11, at 8 p. m., Dr. H. F. Tidwell acting as Chairman. The monthly report, read by Dr. Tannert showed: During November 270 cases were discharged as cured or improved; there were 17 deaths, of which 10 were surgical, and 7 medical; 4 autopsies were performed. Dr. Tannert gave a complete analysis of the entire work for the month. Announcement was made of the Annual Staff Dinner to be held in the middle of January, 1929, with Drs. Roberts and Koopermann in charge.

Dr. Braunstein gave a brief talk on the pathology of the thyroid gland, and a practical classification of goiter, which will be the one used hereafter in the hospital.

Case Presentations

Tuberculous meningitis (Dr. Tidwell): B. E., male child 9 years of age. At the request of Dr. Selinger I saw this boy on October 9, the night before admission, and this history was elicited: Mother living and well; father suffers from "falling down" sickness, biting of tongue and swaying attacks which occur every 3 months; 3 other children in the family living and well; patient has had measles; 3 years ago he was hit by a trolley-car, being struck on the right side of the head, was unconscious for 2 weeks, and remained in King's County Hospital for 4 weeks. Previous to this accident he had appeared to be a bright boy, and afterwards seemed to be drowsy all the time, was very poor in school, and has complained of headaches over the frontal region since the accident. Three weeks before admission he was struck on the head with a knotted handkerchief; that night he complained of pain over both temporal regions, in both ears, and was unable to sleep until 4 a. m. Home remedies were applied and the next day he felt better and was up and about. A week later

he again complained of pain in the same location. He was drowsy and had to be roused to take food. He was taken to the Hospital Ear Clinic, and was told to apply hot applications. Later he was taken to Dr. Selinger's office, as the pain was more severe, and his mother wanted his tonsils removed. As the child seemed ill, radiogram of the skull was advised. "Radiographic examination of the skull is negative to fracture; the sella tursica does not show any definite outline; there is evidence of the anterior clinoid process, but the posterior clinoid does not show; this may be due to enlargement fo the pituitary gland."

This report was made on October 8. On the ninth examination revealed: Left strabismus; pupils react well; drum membranes normal, with a slight blood-clot along the external auditory canal; rather marked rigidity of the neck; increased patellar reflexes, positive Kernig, positive Oppenheim, positive Gordon, and negative Babinski. Temp., 101°; P., 60; R., 26.

The parents were advised that he had some type of meningitis, and arrangements made for his admission to hospital the next morning. Laboratory results: Lumbar puncture was done 4 times, and amounts varying from 12-20 c.c. were obtained. The fluid was either clear or slightly turbid; cell counts varied from 113 to 230; globulin slightly increased; albumin, a trace; no sugar. The cells were almost 100% small lymphocytes; there was pellicle formation after 12-15 hr. Culture was persistently negative for organisms; colloidal gold test showed no color changes; Kahn precipitation test for syphilis negative. Blood count: Hb. 75%; leukocytes 14,600; P. 75%, M. 25%. The temperature for the first 4 days ranged from 100°-102°. On the next 2 mornings the temperature remitted to 98°, rising at night to 100°. There was then a gradual rise, reaching 107° on October 19, the morning of his death. The pulse was comparatively slow, until the last few days, when it kept pace with the temperature, reaching 180. The rigidity in the neck became more marked, the drowsiness gradually increased, almost approaching stupor. There was some tremor of the hands and picking at the bed-clothes.

The boy's condition became progressively worse and he died on the tenth day after admission. Autopsy was refused. Autopsy of guinea-pig, 6 weeks after inguinal injection of the spinal fluid, showed: Several enlarged inguinal nodes, with gross caseation; smears of the caseated parts showing tubercle bacilli; examination of the abdomen showed tubercle formation about the spleen. Microscopic description: Section of the spleen showed occasional giant cells with tubercle formation. Pathologic diagnosis: tuberculosis.

Discussion

Dr. Kedersha pointed out 2 guiding symptoms in the diagnosis of tuberculous meningitis in children: first, headache—the child will often point to the head; second, vomiting, of a projectile type, persistent in spite of all treatment. Cerebral pressure symptoms and signs need not necessarily be present; the findings of the spinal fluid will clinch the diagnosis; he cautioned as to promiscuous opening of the ear drums.

Dr. Selinger said this case was worthy of report if only because it represented the principle that even without signs or symptoms a disease may be present, in its period of incubation; this patient came to him originally to have tonsils taken out, but the history of injuries, combined with the symptoms, led him to temporize till more serious symptoms and signs set in, as read by Dr. Tidwell.

Dr. Stein thought that tuberculous meningitis is usually secondary to a general condition, usually miliary tuberculosis; the symptoms are vague and misleading, and there may be only a single manifestation, such as an ocular sign.

Dr. Ash called attention to the pulse, which was slow—usually it is irregular and fast; he disagreed with the statement that ears are opened up too frequently, and thought, instead, they are not opened up soon enough, so that many cases of mastoiditis could be prevented.

Dr. Comora said that in children the drum is more resistant than in adults, so that an infection is more likely to be in the mastoid than in the middle ear, as the discharge is more easily evacuated through the eustachian tube; the child may have had otitis media before the accident, and have been tuberculous to begin with.

Dr. Koopermann's experience is that one cannot tell the diagnosis until meningeal involvement begins, and definite signs and symptoms appear.

Unusual case of cerebral hemorrhage. A white woman, aged 46, admitted Nov. 7 with paralysis of left side of body. Frequent headaches and dizzy spells, with nervousness, for many years. Dimness of vision increasing for past 2 yr.; nocturia; dyspnea or exertion for 1 yr. Frequent sore throats during early adult life. Married 28 yr.; 9 pregnancies, with 6 full term deliveries, 3 miscarriages, and 2 children dying in infancy; menses began at 14, were regular up to 1 yr. ago, when metrorrhagia occurred and periods have continued irregular since; 3 wks. prior to admission, profuse metrorrhagia lasting 7 days occurred again. On night previous to admission complained of dizziness, headache, nervousness, nausea and vomiting, finally collapsed; subsequently it was noted that she could not move the left arm and leg, and that speech was impaired.

Physical examination showed: An obese, pale woman of about the stated age, not acutely ill. Face showed a blank expression and questions were answered in a monotone voice. Pupils contracted, the right larger than the left; tongue deviated to the left. Slight pulsations visible in the neck. Apex beat 10.5 cm. from midsternal line; right margin of heart 4 cm. from midline. Heart sounds weak, with frequent extrasystoles. Coarse râles audible throughout chest. Anesthesia of left side of body; left arm and leg spastic. Left knee-jerk increased, with Babinski and Gordon positive. B. P. 190/120; T. 98.8°; P. 100; R. 26. Blood: reds 3,700,000; Hb. 55%; whites 9000, polys., 72%. Wassermann negative.

Diagnosis of cerebral hemorrhage and essential hypertension. Treatment included ice-bag to head, bromides, low-protein, salt-free diet. The progress of the case was toward apparent recovery, so that in a week's time motion was fairly good in the limbs; facial expression improved; arrythmia remained and patient complained of nervousness; B. P. 166/78, T. 99-100°; P. 80-100; R. 20. On the afternoon of the seventeenth day after admission patient became restless, complained of being exceedingly nervous, dizzy and weak, and the pulse rose to 120 and was poor in quality; she developed cold perspiration; morphin gr. ¼ was given at 11:30 p. m., patient falling asleep, but she awoke at 1:30 a. m. in great distress; pulse very weak, blood pressure not registering, and she died at 1:55 a. m., stimulation measures failing.

The "Parkinsonian syndrome" observed in this case was probably due to a pathologic condition

similar to that found in Parkinson's disease, in which there is a diffuse degeneration involving the extrapyramidal system with its nuclei, lesions of the pallidum resulting in the general muscular rigidity of which mask-like facies are a part. The improvement in facial expression coincided with improvement in the paralysis, and was probably due to subsidence of edema surrounding the hemorrhagic area in the internal capsule, the presence of this edema having interfered with the blood supply of the nuclei in the extrapyramidal system.

Discussion

Dr. Justin said this case could be considered from a good many angles; the low blood-count could be explained by the hemorrhages; the terminal stage was probably one of cardiac failure, though the original complaints were cerebral.

Dr. Kolbe asked why a diagnosis of "essential hypertension" was made.

Dr. Wilcox agreed that the course of the case made one think of myocardial insufficiency, though the picture at first was that of cerebral arteriosclerosis—nervousness; as time went on the blood pressure went down from 190/120 to 160/128, and at the third week was very low; the reason for the diagnosis of essential hypertension was that the exact cause could not be ascribed. X-rays of the heart showed an enlargement of the aortic, oblique, and transverse diameters.

Unusual case of liver pathology (Dr. Luippold): J. M., male, aged 38, waiter, entered hospital Oct. 14 in a semistuporous condition from over-indulgence in whiskey. He complained of severe pain in the R. U. Q., especially posteriorly, increased by motion or on taking a deep breath. Examination: A thin and medium-sized individual, sallow-complexioned, with suggestion of icteric tint. There were bruises over chest and upper abdomen, due probably to rough handling during intoxication period, also marked tenderness over the liver area, and particularly so latero-posteriorly well up under the rib margin. There was slight elevation of temperature and acceleration of pulse rate. Blood count showed a slight anemia; the icteric index slightly raised and the Van den Bergh a trifle delayed.

As the patient did not recover from his symptoms rapidly as one would expect from an ordinary alcoholic debauch, further search was made, and an x-ray picture revealed a shadow of an ovoid mass about the size of a goose-egg in the region of the liver, and a little to the right of where the gall-bladder should be. A gall-bladder series was then made, the dye injected intravenously, but the gall-bladder was not visualized; on the other hand, the shadow of the mass was persistently in evidence. Our roentgenologist reported his belief that the mass was incorporated with the gall-bladder. Pyelograms and function tests of the right kidney definitely excluded this organ as a factor in diagnosis.

After more than 3 weeks hospitalization, patient's general condition seemed improved, but tenderness over the liver persisted, as also the x-ray shadow of the tumor mass, and an exploratory operation was decided upon on Nov. 8. Dr. Klaus reports his findings as follows: "Appearance of the liver on opening the abdominal cavity through a right rectus incision was the most striking feature. The entire superior and anterior surface, as far as one could see, under the dome of the diaphragm, was of a dead-white color, irregular and patchy in places, giving an impression of a solid invasion of the liver by a new growth. There were numerous adhesions of the superior surface of the liver to the diaphragm; these adhesions together with numerous adhesions of the omentum and the transverse colon to the edge of the liver and gall-bladder, which was completely hidden, were the first indications suggesting some chronic inflammatory process of the liver, most likely syphilis. The superior surface of the left lobe presented the same dead-white appearance with adhesions to the diaphragm. The inferior surface of the liver was of a dark-bluish color and soft from an extreme congestion. The entire liver was much enlarged, and posteriorly, through numerous adhesions, was felt a somewhat firmer mass attached to the under surface. A biopsy was done, and in removing 2 sections of the liver through the superior surface it was immediately recognized that the capsule, which was ¼ in. thick, was the only structure involved, being extremely fibrous, and forming what has been described as an "icing-sugar coating" of the liver. The liver tissue beneath this membrane was apparently normal, except that it was distinctly paler. There was no ascites, and no glandular involvement. The spleen, unfortunately, could not be felt or brought into view because of adhesions. The gall-bladder itself was perfectly normal except for the adhesions above described. As we were dealing with what appeared to be some inflammatory condition of the liver, a cholecystostomy was done."

The pathologist's report on biopsy: "Sections show liver tissue in which the polygonal cells present marked fatty degeneration. They are thrown into definite lobules by fibrous connective tissue septa. In places, the polygonal cells are rapidly proliferating and present mitosis. This is probably an attempt at repair. The capsule is greatly thickened. The bile capillaries do not appear to be involved. There is no histologic evidence of malignancy. Diagnosis: Cirrhosis and fatty degeneration."

I believe we have in this case a cirrhosis of the liver with chronic hepatitis. This latter was observed as a distinct entity by Budd in 1852, but minutely described by Curschmann in 1884, who gave it the uniquely descriptive designation of "sugar-iced" liver. This perihepatitis is part of a generalized chronic peritonitis, and should be more properly associated with peritoneal than liver pathology. The dull white patches of thickened capsule and serosa with adhesions to surrounding parts may be seen in syphilis, as well as cirrhosis of the liver; it may also envelop the spleen in Banti's disease, and in leukemias. Thus inflammatory, or congestive conditions of the viscera may produce these localized thickenings of the peritoneum; but, on the other hand, they may be found where no pathology of these is discernible.

The mass visualized in the x-ray picture, corresponds, I believe to the anomalous lobe found on the under surface of the liver which probably was the most outstanding part in degree of density of the fibrous tissue over-production. The pains and tenderness in the liver area, together with the febrile reaction, may have been due to congestion or a mild hepatitis induced by the toxic effects of the alcohol. These symptoms have subsided almost entirely since the operation, whether due to a gradual involution of the acute disturbance or from better biliary drainage, it is difficult to conjecture; probably both.

Discussion

Dr. Justin asked if there was any history of the patient's having been in the tropics, and if some infection there acquired caused the condition. One

advantage of the operation was that the diagnosis was established beyond a doubt.

Dr. Pearlstein saw the case before operation, and thought that it might be a cyst, or abscess of the liver, but the spleen was not enlarged; the mass, he explained as a calcification of a healed abscess or cyst of the liver.

Dr. Klaus stated that it was almost unbelievable that such extensive pathology as seen at the operation could exist without presenting some symptoms clinically. The first impression at operation was that of a malignancy of the liver, but the real nature of the condition revealed itself by extensive adhesions about the liver at biopsy; it was seen that the pathology was only confined to the capsule of the liver itself, and was of a chronic inflammatory nature. He made the point that, inasmuch, as this case was to be presented before the Clinical Society, the literature was looked up and he found reported numerous cases of "sugar-icing coated" liver.

Dr. D'Acierno suspected tuberculosis in this case, because the patient improved following operation; in tuberculous peritonitis, and cancer sometimes with ascites, for some unknown reason at least temporary improvement follows a laparotomy; or else, the perihepatitis could be due to the continuous influence of some toxin from hidden focal infection.

Dr. Luippold showed the x-ray plates, which revealed in the region of the liver a round, very distinct, sharply defined mass; there was no history of the patient ever having resided in the tropics; the liver was enlarged, probably of the hypertrophic type of cirrhosis; this will eventually become atrophic with various remissions, unless some intercurrent infection carries off the patient; the bibliography on this condition variously termed "sugar-ice liver", Zuckergussleber, or perihepatitis, is considerable, Rolleston writing many pages on it, and Curschmann devoting 80 pages to it; it seems that coincidently the peritoneum, pleura, and pericardium are also affected; we can't say whether it is due to a primary focal infection or not; alcohol is a certain factor in some cases, but insufficient to account for all; tuberculosis is unproved, and other factors are unknown; sometimes the viscera are affected with the inflammatory process, but in most cases there is no pathology of the viscera at all.

Carcinoma of tranverse colon (Dr. Lange). M. F., aged 49, housewife, admitted to hospital Apr. 25 with history of nausea, belching of gas, pain in abdomen, loss of 35 lb. in weight, and general weakness. Present history dates back 4 mos., when patient had nausea, loss of appetite, and crampy pains in her abdomen; the pains occurred most frequently at night and were often followed by vomiting; neither pain nor vomiting had any relation to food; there was no blood in the vomitus; nothing relieved the pain; never jaundiced; bowels costive, stools never containing visible blood; no urinary symptoms. Heart and lungs normal. Indefinite mass felt in the upper right lumbar region. Blood: Reds 4,300,000; whites 11, 900; polys, 68%. X-rays show a large filling defect in region of the cecum; in the transverse colon about 3 in. from the hepatic flexure is a small defect in outline of the colon. Diagnosis: New growth of cecum.

Operation on May 2, with resection of 6 in. of the terminal ileum, appendix, cecum, ascending colon, and about 6-8 in. of the transverse colon; then a lateral anastomosis of the ileum to the transverse colon. Recovery was stormy, there being considerable shock. There was never much distension, and no vomiting. On Oct. 5, the patient was seen again, and had gained 15 lb.; looked well; bowels move once daily; no pain; appetite good; no hernia present; no evidence of recurrence. On Dec. 4, she had gained at least 10 lb. more; feels well; still no evidence of recurrence.

Pathology: A mass, hard and nodular, involving about 4 in. of the middle of the ascending colon; diameter about 3 in., somewhat adherent to the posterior lumbar fascia. Another lesion in the transverse colon, near the middle, involving its mesenteric border; this is hard, with everted edges, and there is a crater present, which can be felt through the bowel wall; also many enlarged hard glands present along inner side of the ascending colon. No masses present in the liver.

Carcinoma of sigmoid colon (Dr. Tannert). J. Z., aged 69, carpenter, admitted Nov. 24, discharged Dec. 24. 1926; chief complaint on admission was inability to move bowels for 9 days. Past history: hernia operation 12 yr. before.

Physical examination: emaciation; abdomen distended markedly, muscles tense; some tenderness over the left iliac region. Rectal examination revealed obstruction to finger at the anterior wall of the rectum about 3½ in. from anus; very painful on examination. Blood pressure 165/95; urine and Wassermann negative; x-ray examination attempted, but patient could not retain the barium enema.

Operation: A first stage Mikulicz was performed; the distal segment of bowel appeared tight; the second stage was performed 2 days later, the opening being made with cautery; the third stage was done the next day, and the tumor mass removed by cautery. He was discharged exactly 1 month after admission, with slight secretion from wound.

Findings: A mass located about 3 in. above sacral promotory and not adherent; another mass about 1½ in. long, and very hard; no palpable lumen; the gut above the latter mass distended to about twice its normal size, while the gut below was collapsed. The small gut not distended. Bloody fluid in abdomen.

This patient has been seen on several occasions since discharge. No recurrence is discoverable; he has normal bowel movements, and is back at work.

Fracture of the long bones treated by skeletal traction through the os calcis (Dr. Klaus). These 3 cases might be considered as one, as they present the same principle of skeletal traction by means of the Steinman nail through the os calcis.

J. D., aged 30, admitted to hospital Nov. 10. The left leg about the knee was crushed between 2 automobiles. Examination showed an extensive hematoma of the knee with a lacerated wound 1 in. long above and on the inner side of the knee with a smaller wound over the outer aspect of the lower third of the thigh. There was a large dissecting hematoma of the entire lower half of the thigh with profuse bleeding from both wounds. The skin and soft tissues about the wounds were extensively traumatized. X-ray pictures taken immediately upon admission showed a comminuted supracondylar fracture of the femur with 1 in. over-riding and the lower fragment displaced inward and backward. He was operated upon within 1 hr. after admission; the wounds thoroughly cleansed, and both wounds enlarged to drain the

extensive hematoma of the lower half of the thigh; traumatized muscle and skin excised; the wounds were not sutured. Because of extensive injury about the knee and lower third of the thigh, and because of the wounds, management of the fracture by calipers through the condyles was impossible, and as traction was necessary it was decided to use a Steinman pin through the os calcis, leaving the knee free from dressings, well realizing that only traction in full extension of the leg is possible by the pin in this location and that no flexion at the knee was possible to correct the backward displacement of the lower fragment constantly present in supracondylar fractures. Seven pounds weight was applied with the leg suspended in a Thomas splint. Radiographs taken the following day and repeatedly thereafter show the fragments in as nearly perfect alignment and position as possible with callous present after 16 days; the swelling of the thigh and knee have entirely disappeared and the wounds are practically healed with no infection having occurred. The case shows where a good result has been obtained in a compound fracture of the femur with extensive injury to the soft parts by a method of traction in full extension not usually likely to give the best results but in which one had no other choice.

M. M., age 10 yr., admitted to hospital Oct. 15, having fallen from a roof and on admission showing a compound fracture of both bones of the lower third of the right leg through a large 2½ in. lacerated wound over the inner side of the leg just above the ankle joint. There was a smaller wound over the outer side of the leg with a large dissecting hematoma of the calf. Both upper fragments of the fracture were protuding through the wound of the inner side of the leg with plenty of dirt ground into them. Operation was done shortly after admission. The traumatized skin and tissue were débrided with removal of infected lower ends of both upper fragments. The wounds were thoroughly cleansed and partially sutured, and Carrel tubes inserted for irrigation. As traction was necessary for fixation and immobilization during treatment of the wounds, a Steinman pin was inserted through the os calcis and the leg suspended in a Thomas splint with 7 lb. weight. Radiographs taken weekly showed excellent position and alignment with calus. The pin was removed on the fifteenth day with the position remaining the same. There has been a slight discharge of pus from the wound from a low grade infection; no temperature after the first week and the wound granulating, but in its depth the bone is still visible. No other type of traction is feasible in the management of such a fracture while at the same time dealing with extensive injury to bone and soft tissues.

R. Y., aged 12, admitted Nov. 26 following an automobile accident, semiconscious and restless. X-rays showed a linear fracture of the right temporal bone. Spinal fluid was blood-stained and under moderate pressure. There was a fracture of the middle of the shaft of the right femur, with shortening. Recovery from his cranial injury has been complete, but, due to his restlessness in the first week, the fracture was more difficult to manage. Traction was plainly indicated with the use of considerable weight, and a Steinman pin through the os calcis was decided upon. It eventually required 21 lb. to overcome the shortening. This case is presented to show the great amount of traction necessary to correct deformity and which is impossible by any adhesive plaster traction or the overhead suspension method of Bryant. The plaster constantly slips off in the Bucks extension, if sufficient weight is used, and where it does not x-rays will show failure of the fragments to change their position. Calipers into the condyles of the femur are dangerous in children as either causing an injury to the epiphyseal cartilage or tearing off the epiphysis itself. Traction through the os calcis is simple and easy to manage.

I believe that the Steinman pin should be used in all fractures of both bones of the leg, where the fragments cannot be locked and firmly fixed by the usual simple reductions, and in those cases of compound fractures for management of the fragments to prevent deformity during the period of management of the bone lesion, soft parts and daily dressings. This applies to only that group of severe crushing injuries and not those with practically little injury to the soft tissues. It offers an excellent method of traction in fractures of the femur and especially in older children, leaving the adhesive plaster traction for the younger children.

Acute hematogenous osteomyelitis (Drs. Griessinger and Klaus). W. A., aged 12, admitted to North Hudson Hospital, November 1, with history of having been perfectly well until 5 days before, when he was suddenly seized with severe pain in the lower part of the left leg. Following this he became acutely ill with fever and sweats. The left leg became swollen and red and the pain more intense. On admission, the left leg below the knee was considerably swollen, especially the lower third, marked tenderness over the lower third, and an active lymphangitis associated with an inguinal adenitis. There was semifluctuation over the lower internal aspect of the tibia. The child looked most acutely ill; temperature 105°; pulse 130; leukocytosis 14,500; polys. 80%; no chills. Diagnosis: acute hematogenous osteomyelitis of the tibia. No primary source of infection could be determined in the history or examination; no injury was noted, but the child was subject to frequent tonsillitis. Blood cultures reported November 3 and 7 were positive for Staphylococcus aureus. Radiography was negative. Operation Nov. 2, 1928, through a 3 in. incision over the internal surface of the lower tibia revealed some pus in the soft tissues, the peristeum of the tibia was raised and, on incision, a large amount of pus escaped. Three small openings were made into the metaphysis just above the epiphyseal line with a Hudson burr, with relief of pus from the medullary canal. Carrol-Dakin tubes were inserted and the wound packed lightly with gauze. Following the positive blood culture report, 3 c.c. of a 1% solution of mercurochrome were given intravenously every third day for 4 doses, until the first negative culture was obtained. Following both the injections and operation the temperature came down and the child rapidly improved. A considerable, extensive, superficial infection under the skin of the calf of the leg developed, which was opened by many small incisions and promptly cleared up. The first negative culture was obtained Nov. 12, the twelfth day after admission. Radiographs taken on the twenty-fifth postoperative day showed the full extent of the bone destruction and line of sequestration. At present all wounds are healed excepting the original operative wound which is discharging a moderate amount of pus and will continue to do so until complete sequestration takes place and dead bone is removed, by sequestrectomy.

Discussion

This case, said Dr. Klaus, is being presented chiefly to show the radical change in treatment

from that formerly taught, and the least amount of bone destruction and disability by conservative treatment. The treatment of the osteomyelitis itself, which is a secondary and embolic manifestation of the invading organism, in many cases is of no greater importance than treatment of the primary source of infection and, in particular, the active bacteremia seen in many cases which is responsible for the high mortality.

Treatment of the osteomyelitic infection becomes the local treatment and its proper management often determines the extent of the bone destruction and length of disability. Every case of acute hematogenous osteomyelitis is doomed to multiple operations, which is most difficult to impress upon the patient and not infrequently upon the doctor. Operation upon the bone lesion should be done early, over the site of maximum tenderness. X-rays are of no use in early localization of the disease. Treatment of bone infection differs in no way from that of the soft tissues except in the density of the two structures and should consist of simple opening and drainage. It differs from infection of the soft parts only in the length of time required for separation of the living from the dead tissue. In the destructive period of osteomyelitis the amount of damage to the bone is dependent not so much upon the infection as to the circulatory involvement and thrombosis caused by the infection, while the reparative process is directly contingent upon the blood supply left intact after infection and its sequels have ceased. Therefore, such operations as would strip up large segments of periosteum, remove and gutter out large segments of the diaphysis with curetting out of the medullary canal, are most emphatically condemned as not only unsound but causing a far greater amount of bone destruction and subsequent sequestration. Moreover, it is impossible, at operation at this stage, to differentiate how much of the bone has been involved or where the line of sequestration will take place, but most assuredly if one could guess such a line, the operative interference of simply removing the bone only leads to further destruction of bone beyond the limits of operative removal by thrombosis and injury to the blood supply in the immediate operative vicinity, and with the result of greater subsequent sequestration. Small openings with a drill or burr are sufficient to drain the infection within the diaphysis; the temperature will fall and the sepsis cease; sequestration of the dead from the living bone follows slowly but automatically. Subsequent removal of the sequestrum should only be done when fully separated, as shown by the x-rays, and a strong involucrum is formed.

Dr. Lange agreed with the treatment instituted, as the proper one in such a case; in opening up any acute osteomyelitis it is best to use nothing but a burr, as chisel and hammer are dangerous on account of the possibility of setting emboli free; the organisms have a certain selectivity, as shown by the fact that the diaphysis is usually involved first; the treatment in part of an extremity where there are 2 bones, like the leg or forearm, is more satisfactory than where there is only 1 bone, such as the thigh or arm, especially if a second operation is necessary and sequestrum has to be removed; if it is not thoroughly cleaned, sinuses occur and last for years.

Dr. Griessinger said that it was much better to take out only small pieces of bone, and that the less damage done at operation, the better the final result.

Dr. Klaus began a discussion on mercurochrome, which was used in the treatment of this case, and was the principal reason for its presentation; originally doses were advised as about 30-40 c.c. of a 1% solution, but now we are using a maximum of 5 c.c.

Dr. Kolbe quoted an article in "Progressive Medicine", which expressed the opinion that mercurochrome intravenously is utterly worthless.

Dr. Sweeney referred to use in years past of a compound of phenol and iodin; at first it met with apparently good results, then poor results were obtained, and finally it met with general disfavor; may not the same thing apply to mercurochrome?

Dr. Tyndall has had analogous results when he used mercurochrome in postpartum infections.

Dr. Griessinger has had very good results with mercurochrome in puerperal infection, and general septicemia associated with osteomyelitis, in all of which positive blood cultures were obtained, and later became negative following injection of the dye.

Dr. Grossman asked if the infection was ever localized; i.e., a general septicemia turned into a local abscess by the use of mercurochrome.

Dr. DeMerritt was glad to hear that the drug had been given up by most men, as it was first used as a urethral antiseptic; it is not comparable to acriflavine; in his opinion the drug is much overpraised.

Dr. D'Acierno has had better results with use of metaphen and aolan; a small dose of these drugs may excite enough of a reaction to stimulate the formation of antitoxic substances; he believes the same thing happens when a small dose of mercurochrome is injected.

In conclusion, Dr. Klaus stated he believed that mercurochrome is of decided value in blood stream infections, particularly staphylococcus, and B. coli, and he mentioned 5 cases which were cured by its use.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Carteret Club, December 12, in annual session.

Dr. Herbert D. Pease, of the Pease Laboratories, Inc., New York, spoke on the subject of, "Some Laboratory Problems of Interest to the Physician". Dr. Pease needs no introduction, his work is world renowned, and to attempt to place before the Journal readers an intelligible report of his most interesting and valuable address would be folly, without recourse to stenographic notes, which I unfortunately do not possess. Dr. Pease referred to the article in the December Journal by Dr. Krauss, and commented freely upon the extensive study made by Dr. Krauss, suggesting that every member should read the article without fail. A very interesting discussion followed.

Drs. William A. Clark, Abel T. Bruere, and Raymond S. Seibert were voted Honorary Members of the society.

The Treasurer, Dr. H. R. North, presented his Annual Report, which had been most carefully prepared and exhibited a very prosperous condition of the society's finances. The Auditing Committee, finding the accounts correct in every detail, commended the society on the possession of so able and efficient an officer.

Drs. R. J. Belford, of Princeton; J. N. Zimskind and James A. Murphy, of Trenton, were regularly elected Associate Members. The application of Dr. Earle K. Miller was read and referred to the Membership Committee.

Dr. William G. Schauffler spoke of the recent

death of Dr. John M. Carnochan, of Princeton, and referred to his commendable example as a practitioner.

The President appointed Drs. Charles F. Adams, George N. J. Sommer, of Trenton; and Dr. A. K. Bowman, of Princeton; as a committee to draw suitable resolutions upon the death of Dr. Carnochan.

The applications of Drs. W. J. H. Abey, H. H. Ashley, Robert Convery, W. D. Farmer, Samuel Cochran, and E. E. Graham were referred to the Membership Committee

The following officers were elected for the ensuing year: President, R. B. Seely; Vice-President, J. S. Vanneman; Treasurer, H. R. North; Secretary-Reporter, A. D. Hutchinson; Censor, C. J. Craythorn; Nominating Committee, J. J. McGuire; Alternate, H. B. Costill; Annual Delegates: J. S. Vanneman, R. B. Seely, W. J. Harman, Nathan Swern, and J. M. Schildkraut.

A communication from Dr. F. J. Quigley, Chairman of the Committee on Revision of By-Laws, was read and referred to the By-Laws Committee.

A recapitulation of the subjects of addresses delivered before the society during the past year prepared by the Secretary, brought forth much favorable comment upon the work accomplished by the Program Comittee, a tribute well deserved, the strength and vitality of a component society depending almost wholly upon the interest manifested in discussions of important papers.

MIDDLESEX COUNTY

John F. McGovern, M.D., Reporter

The regular annual dinner of the Middlesex County Medical Society was held December 19 at Pfaff's, on the Plainfield Road. Dr. F. M. Hoffman presided and 53 members enjoyed the entertainment.

Election of officers for the ensuing year resulted as follows: President, I. Spencer, of Woodbridge; Vice-President, F. Brown, of New Brunswick; Secretary and Reporter, John F. McGovern, of New Brunswick; Treasurer, F. Johnson, of New Brunswick.

Dr. Clarence R. O'Crowley, of Newark, gave an interesting illustrated talk on "Surgical Kidney".

Rutgers Medical Club

John H. Rowland, M.D., Reporter

The regular montly meeting of Medical Section of the New Brunswick Rutgers Club was held at the home of Dr. J. H. Rowland, 159 New Street, New Brunswick, on Thursday evening, November 22. There were present 35 friends, guests and members.

There being no business to transact, the speaker of the evening, Dr. Temple Fay, of Philadelphia, was introduced and spoke of "Head Injuries". Dr. Fay brought out in a most detailed and interesting fashion the disturbance both mechanical and physiologic produced by head injuries; the symptoms and the means and methods of relief. Dr. Fay also demonstrated some beautiful roentgenograms as a means of diagnosis in head injury.

After brief discussion refreshments were served by Bruns, of New Brunswick, and the gathering adjourned spontaneously at a late hour.

MONMOUTH COUNTY

Daniel Traverso, M.D., Reporter

The annual meeting of the Monmouth County Medical Society was held at the County Inn, Freehold, N. J., on Tuesday, December 11, 1928, with President John C. Clayton, of Freehold, presiding.

The election of officers resulted as follows: President, James F. Ackerman; Vice-President, James A. Fisher; Treasurer, Robert E. Watkins; Secretary, Daniel F. Featherston; Censors, H. W. Hartman, H. W. Engling and W. G. Herrman; Delegates, J. B. Makin, S. H. Cassidy and C. B. Blaisdell; Reporter, Daniel Traverso.

Following the election of officers, a turkey dinner was served.

About 30 members were present.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

The Morris County Medical Society held its regular quarterly meeting the evening of December 18, at the Parish House of the Church of the Redeemer, in Morristown. President Mial, wielding the gavel for the first meeting of his incumbency, had the pleasure of presiding over an attendance of 40 members, of which, and its encouraging significance, he expressed gratification.

Routine business included approval of the minutes of the September meeting, approval of the report of Treasurer Emory, and acceptance of the report of the Auditing Committee, Dr. Williams, of the Treasurer's accounts, found to be accurate and in good order.

Four new members were unanimously elected: Alfred J. Truex, of Boonton; George W. Comeau, Antonio Hubert and Percy L. Smith, of the Greystone Park State Hospital.

Secretary Lathrope reported the proceedings of the Executive Committee since the last quarterly meeting; treating of proposed changes in the Constitution and By-Laws of the State Society; 2 special meetings of the County Society to be held if possible during the winter and spring.

Secretary Lathrope explained the desirability of the re-appointment of Dr. McBride as Commissioner of Labor; and matters of legislation the Welfare Committee is going to bring up this winter, affecting hospitals in their collection of fees for compensation cases, the idea of the bill being to have the hospital expense deducted from the remuneration before it finally goes to the successful plaintiff; another bill to be introduced and pushed which concerns expert testimony, which has the backing of the Bar Association as well as the State Medical Society, with a fair chance of going through; and suggesting that these things be kept in mind and especially when seeing representatives in the State Legislature.

Dr. Larson, of the Library Committee, reported. again calling attention to the collection of something over 40 current medical journals now on file at the Morristown Library; that judging from the signatures in the book there of members using the magazines, the committee feels they haven't been used to the extent they might be; but they feel it probably would be wise to continue the appropriation and the collection for another year: that it is a source of information that the members will grow to appreciate. Action was duly and unanimously taken that the Library Committee be authorized to expend the necessary amount of money to continue the files of magazines subscribed for during the present year and to have bound those already on file; approximately $200.

The Committee on Resolutions reported the following resolution which was unanimously adopted by the society:

WHEREAS, The Morris County Medical Society records with deepest sorrow and regret the death of Dr. William J. Summers, of Boonton, New Jersey, occurring on the seventh day of July, 1928; and

WHEREAS, It is fitting that this society show its respect for his memory and sorrow for his untimely death; therefore be it;

RESOLVED, By the Morris County Medical Society that we extend our heartfelt sympathy to his mother in her great bereavement. This Society fully realizes that in his death, his country has lost an able patriotic citizen, whose army service of 2 years, during the world war, was most creditable, and during which he contracted the disease which later caused his death; that this society has lost an active, capable and valued member and his home town an engaging personality, an excellent physician and a respected citizen; and be it further;

RESOLVED, That these resolutions be spread upon the records of this society and that a copy duly signed by the president and attested by the secretary be presented to his family.

Under new business a motion was unanimously carried, directing the secretary to write to the Governor-elect, and to the Morris County Senator Abell and Assemblyman Young, endorsing the administration of Dr. McBride as Commissioner of Labor, irrespective of political faith, and endorsing him for another term as Commissioner of Labor.

President Mial introduced the speaker of the evening, saying: "We are to be congratulated on having a speaker this evening who is very eminent in the profession and a man who has been in the forefront for a great many years, Dr. Henry B. Orton, of Newark".

Dr. Orton's subject was "Bronchoscopy—Its Indications and Use in Treatment". Pictures were projected of conditions indicating the efficacy of bronchoscopy which were minutely explained and the results obtained in removing various vegetable and metallic foreign bodies. Dr. Orton covered his subject in a manner that was at once interesting, refreshing and enlightening and he was cheerfully given a unanimous vote of thanks and appreciation.

Those taking part in the discussion and whose questions were readily answered by Dr. Orton, were Drs. Lathrope, Mills, Haven, Christian, Collins and Rice.

PASSAIC COUNTY

John H. Carlisle, M.D., Secretary

A regular meeting of the Passaic County Medical Society was held at the Health Center, Paterson, on December 13 and 40 members were present. Dr. Tuers presided.

Minutes of the last meeting were read and approved. Dr. Tuers explained that owing to increase in the dues (from $10 to $12 per annum) it would be unnecessary for the Society to draw on the Sinking Fund for current expenses. The increase in current expenses is due to an increase in the assessment by the State Society, the amount now being $10 per member per annum.

A letter from Dr. Quigley as to suggestions for the new State Society Constitution was read and filed. No suggestions were offered.

The scientific session consisted of a talk by Dr. Harold Pardee, of New York, on "Arteriosclerotic Heart Disease". He stressed the importance of etiology in outlining the treatment. An interesting discussion by Drs. Markel, L. Shapiro and Hagen followed.

Dr. Tuers then presented Dr. William Spickers, the new President, to the Society. Dr. Spickers announced that in January Dr. Chickering, of the Rockefeller Institute, would talk on the "Treatment of Pneumonia" and in February Dr. A. D. Smith, of New York, would talk on "Low Back Pain". He requested that during the coming year members of the society present interesting cases at the meetings.

Dr. Mitchell moved a vote of thanks to Dr. Tuers and the other officers of the society for their work during the year of 1928.

A suggestion of Dr. Ash, that the discussions be taken down by a stenographer, was referred to the Executive Council with power. The meeting adjourned at 11:30.

SALEM COUNTY

William H. James, M.D., Reporter

The regular meeting of the Salem County Medical Society was held December 12 at the Salem County Memorial Hospital. The meeting was called to order at 2 o'clock.

The minutes of the preceding meeting were read and approved. Dr. R. M. A. Davis, of Salem, was elected member of the Nominating Committee of the state society. There were several interesting cases reported and discussed.

There were present from Gloucester County Dr. Stout, of Wenonah, and Dr. Downs, of Swedesboro; Drs. Myatt and Moore, of Bridgeton, were present from Cumberland County.

After the regular business of the meeting was transacted the society had the pleasure of hearing a paper read by Dr. F. L. Perry, of Woodstown, who chose for his subject, "Influenza". The paper was very well prepared and was discussed, at length, by the members and visitors present.

This meeting, composed entirely of local talent, was one of the best meetings that we have had for a long time. There seemed to be a general feeling of coöperation among the members.

Dr. L. H. Hummel, of Salem, was appointed essayist for the next meeting, which will be held the second Wednesday in February at the Memorial Hospital.

At the conclusion of the meeting the society enjoyed a splendid dinner at Johnson Hotel.

SOMERSET COUNTY

Lancelot Ely, M.D., Reporter

The regular bi-monthly meeting of the Somerset County Medical Society was held Thursday, December 13, at the Nurses' Home, Somerset Hospital, Somerville, with a large number of members present, and the nurses of the hospital invited as guests.

After regulation business, Dr. Frederick Allen, of the Physiatric Institute, Morristown, gave a most interesting and instructive talk on "Metabolic Disturbances". The meeting was thrown open for questions and discussions.

UNION COUNTY

Russell A. Sherrefs, M.D., Reporter

A large number of representative physicians attended a "Demonstration Clinic on the Treatmen of Syphilis and Gonorrhea" held at the

Elizabeth General Hospital on the evening of December 12. A. J. Casselman, M.D., Dr. P. H., Consultant Bureau of Venereal Control, State Department of Health, spoke of the methods of administering the newer drugs for the treatment of syphilis, including bismuth compounds of arsphenamin, arsanilic acid and stovarsol in solution and in oil. These methods were demonstrated on a group of patients and Dr. Casselman's technic illustrated the best and easlest methods of administering the indicated treatment. He lectured in such an easily understood, pleasantly conversational manner that his listeners gained much helpful information as to modern methods of solving venereal problems.

Dr. L. H. Chaiken, Assistant Venereal Disease Clinician, spoke on the "Accepted Methods for Treating Gonorrhea in the Male", illustrating these methods on a number of patients.

"The Diagnosis of Gonorrhea in the Female and a Proposed Method for Treating This Condition" was the subject of an address by Irving Lerman, M.D., F.A.C.S., Director Venereal Disease Clinic.

Each of the speakers answered a number of questions asked by the physicians present, and evinced a convincing and authorative knowledge and understanding of the subjects discussed. A large display of pharmaceuticals, instruments, etc., used in this line of work, gave added interest to the occasion.

A fine demonstration of the darkfield examination of syphilltic lesions, and slides showing the specific gonorrhea germ, was offered by Arthur R. Casilll, M.D., Assistant Venereal Disease Clinician. As we examined microscopically the interesting specimens of the rascally gonococcus, some one was heard to murmur, "What could be Neisser?"

Summit Medical Society

W. J. Lamson, M.D., Secretary

November Meeting

The regular meeting of the Summit Medical Society was held at Wallace Pines on Tuesday, November 27, with the President, Dr. Krauss, in the chair, and Dr. Morris entertaining.

Present: Drs. Bensley, Bowles, Burritt, Byington, Campbell, Disbrow, Eason, Hallock, Johnston, Krauss, Lamson, Larrabee, Macpherson, Meeker, Meigh, Milligan, Moister, Morris, Pollard, Smalley, Tator, Tidaback and Wolfe, and Dr. MacGregor, of Summit, as guest. Minutes read and approved. The resignation of Dr. Charles P. Clark from active membership on account of inability to attend the meetings, was accepted with regret, and he was elected an Honorary Member.

Dr. J. E. L. Imbleu, of Unionville, was nominated for membership. Application for membership in the society was received from Dr. Jere A. Allis, of Basking Ridge, and placed on file.

The subject of a Physicians' Telephone Bureau was discussed, and the President appointed a committee, consisting of Drs. Bensley and Moister to look into the matter and report at a future meeting.

The paper of the evening was read by Dr. Morris, on the "European Clinics of 1928".

Dr. Morris was one of a group of about 130 who last summer visited the leading European clinics under the auspices of the Interstate Post-Graduate Medical Association of North America. The scientific program began on shipboard, with daily sessions at which a paper was read and discussed. In Europe a carefully pre-arranged plan enabled the physicians to attend clinics in Paris, Berne, Munich, Vienna, Buda-Pest, Prague and Berlin, and to see operations performed by the leading surgeons.

He gave an interesting account of many of these cases, and described the technic, which in many ways is different from ours. For example, local anesthesia is almost universal, chloroform and ether being used very seldom. Very extensive operations are done under spinal anesthesia. In rectal anesthesia, "avertin" is used, the anesthesia lasting 1 to 2 hours, and the analgesia several hours longer. Ethyl chloride is used by inhalation for short cases. Postoperative shock is diminished, and active exercises are started the day following the operation, so that many of the patients are out of bed in a week.

Twisted silk is used almost universally for ligatures and sutures. A minimum amount of surgical dressings is used. Surgical asepsis of the operator is variable but the results are surprisingly good.

The Clinical Trip for 1929 will include England, Scotland and the Scandinavian countries.

December Meeting

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines on Wednesday, December 26, at 8:30 p. m., with the President, Dr. Krauss, in the chair, and Dr. Larrabee entertaining. Present: Drs. Bensley, Bowles, Burritt, Campbell, Hallock, Krauss, Lamson, Larrabee, Macpherson, Meeker, Meigh, Pollard, Prout, Reiter, Smalley, Tidaback and Wolfe; and Dr. Messina, of Summit, and Dr. Allis, of Basking Ridge, as guests.

Dr. J. E. L. Imbleau, of Unionville, was unanimously elected to membership.

The paper was read by Dr. J. D. Gochler, of Newark, on "Non-General Anesthesia".

Regional anestheisa is of great value in otherwise poor surgical risks, where general anesthesia may be hazardous. Postoperative shock and other complications are slight, if any, and there is no danger to life, practically. It is indicated in all minor operations, and in cases of heart, kidney or other organic diseases.

Spinal anesthesia, properly administered, lasts for 1 to 1½ hr., and causes a fall in blood pressure of about 50 points, due to relaxation and dilatation of the abdominal vessels. In order to avoid cerebral anemia the Trendelenberg position is necessary duirng and after the operation. It is contraindicated in a systolic blood pressure of 100 or lower. The ration of the pulse pressure to the diastolic pressure should be within the limits of 25% to 75%. Patients who are anemic or cachectic or very nervous are not good subjects for spinal anesthesia.

Technic is important. A hypodermic of morphin is given 1 hr. before introducing the anesthetic. Dr. Goehler prefers neocain, ½ to 1%, on account of its purity and easy accuracy of dosage. The injection should be given in the sitting position when possible. If given lying on one side the patient should be turned on his back at once. Ten minutes after injection the anesthesia is complete.

The subject, being somewhat unfamiliar, brought out an interesting discussion. It was recognized that spinal anesthesia offers much of value to the surgeon in many difficult cases.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, EPHRAIM R. MULFORD.....Burlington
First Vice-President, ANDREW F. MCBRIDE.....Paterson
Second Vice-President, GEORGE N. J. SOMMER.....Trenton
Third Vice-President, JOHN F. HAGERTY.....Newark
Corresponding Sec., WILLIAM J. CARRINGTON....Atlantic City
Recording Secretary, J. BENNETT MORRISON.....Newark
Treasurer, ELIAS J. MARSH.....Paterson

TRUSTEES

NORTON L. WILSON, *Chairman*.....Elizabeth
JAMES HUNTER, JR., *Secretary*.....Westville
ALEXANDER MARCY, JR.....Riverton
THOMAS J. SMITH.....Bridgeton
EDWARD J. ILL.....Newark
PHILIP MARVEL.....Atlantic City
WILLIAM G. SCHAUFFLER.....Princeton
THOMAS W. HARVEY.....Orange
GORDON K. DICKINSON.....Jersey City
HENRY B. COSTILL.....Trenton
WELLS P. EAGLETON.....Newark
ARCHIBALD MERCER.....Newark
LUCIUS F. DONOHOE.....Bayonne
JAMES S. GREEN.....Elizabeth
WALT P. CONAWAY.....Atlantic City
EPHRAIM R. MULFORD.....Burlington
ANDREW F. MCBRIDE.....Paterson
GEORGE N. J. SOMMER.....Trenton
JOHN F. HAGERTY.....Newark
ELIAS J. MARSH.....Paterson
WILLIAM J. CARRINGTON.....Atlantic City
J. BENNETT MORRISON.....Newark

First District	Term expires, 1932	GEORGE H. LATHROPE, Newark
Second District	" " 1931	B. S. POLLAK, Secaucus
Third District	" " 1930	MARTIN W. REDDAN, Trenton
Fourth District	" " 1929	PAUL M. MECRAY, Camden
Fifth District	" " 1933	J. HARRIS UNDERWOOD, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....CHRISTOPHER C. BELING, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....FRANCIS H. TODD, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. SCAMMELL, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....MARCUS W. NEWCOMB, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....ALDRICH C. CROWE, Ocean City

Committee on Scientific Work

W. E. DARNALL, Chairman.....Term expires 1929
R. K. HOLLINSHED..... " " 1930
LANCELOT ELY..... " " 1931

Committee on Public Hygiene and Sanitation

G. K. DICKINSON, *Chm.*, Jersey City.....Term expires 1929
J. FINLEY BELL, Englewood..... " " 1929
THOMAS B. LEE, Camden..... " " 1930
HENRY SPENCE, Jersey City..... " " 1930
H. GARRETT MILLER, Millville..... " " 1931
HARVEY S. BROWN, Freehold..... " " 1931

Committee on Credentials

WILLIAM J. CARRINGTON, *Chm.*.....Atlantic City
ELIAS J. MARSH.....Paterson
PHILIP MARVEL, JR.....Atlantic City

Delegates to the American Medical Association

JOHN F. HAGERTY.....Term expires 1929
B. S. POLLAK..... " " 1929
W. BLAIR STEWART..... " " 1930

Alternate Delegates

GEORGE H. SEXSMITH.....Term expires 1929
PHILIP MARVEL..... " " 1930
S. B. ENGLISH..... " " 1930

Committee on Publication

CHAS. D. BENNETT, *Chm.*, Newark.....Term expires 1930
EDWARD J. ILL, Newark..... " " 1929
J. BENNETT MORRISON, Newark..... Ex-officio
EPHRAIM R. MULFORD, Burlington..... Ex-officio

Committee on Finance and Budget

HARRY R. NORTH, *Chm.*.....Term expires 1933
PAUL M. MECRAY..... " " 1934
JOHN NEVIN..... " " 1929
B. S. POLLAK..... " " 1930
H. GARRETT MILLER..... " " 1931
THOMAS W. HARVEY..... " " 1932
ELIAS J. MARSH, *Treasurer*..... Ex-officio

Committee on Program and Arrangements

MARTIN W. REDDAN, *Chm.*, Trenton.....Term expires 1931
WILLIAM G. SCHAUFFLER, Princeton..... " " 1929
WILLIAM D. OLMSTEAD, Atlantic City..... " " 1930
EPHRAIM R. MULFORD, Burlington..... Ex-officio
J. BENNETT MORRISON, Newark..... Ex-officio

Committee on Honorary Membership

THOMAS W. HARVEY, *Chm.*.....Orange
GEORGE H. SEXSMITH.....Bayonne
WILLIAM G. SCHAUFFLER.....Princeton

Committee on Standardization of Hospitals

JOHN C. MCCOY, *Chm.*.....Paterson
HOWARD S. FOLMAN.....Jersey City
DAVID A. KRAKER.....Newark
GEORGE N. J. SOMMER.....Trenton
THOMAS B. LEE.....Camden
WILLIAM W. BROOKE.....Bayonne
HAROLD D. CORBUSIER.....Plainfield

Committee on Business

EMANUEL D. NEWMAN, *Chm.*.....Newark
JOHN NEVIN.....Jersey City
W. BLAIR STEWART.....Atlantic City
SAMUEL B. ENGLISH.....Glen Gardner
EMLEN P. DARLINGTON.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

PAUL M. MECRAY, *Chm.*.....Camden
ALFRED STAHL.....Newark
HUGO ALEXANDER.....Hoboken
HARRY L. ROGERS.....Riverton
HORACE D. BELLIS.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

FRANK W. PINNEO, *Chm.*.....Newark
J. FINLEY BELL.....Englewood
AUSTIN H. COLEMAN.....Clinton
FRED J. QUIGLEY.....Union City
JAMES S. GREEN.....Elizabeth
RALPH K. HOLLINSHED.....Westville
CLARENCE W. WAY.....Sea Isle City

Committee on Welfare

HENRY C. BARKHORN.....Newark
LAWRENCE H. BLOOM.....Phillipsburg
J. C. CLAYTON.....Freehold
A. H. COLEMAN.....Clinton
JOSEPH G. COLEMAN.....Hamburg
WALT P. CONAWAY.....Atlantic City
SAMUEL A. COSGROVE.....Jersey City
HENRY B. COSTILL.....Trenton
RICHARD M. A. DAVIS.....Salem
HAROLD B. DISBROW.....Lakewood
LUCIUS F. DONOHOE.....Bayonne
LANCELOT ELY.....Somerville
LINN EMERSON.....Orange
JAMES S. GREEN.....Elizabeth
EDWARD GUION.....Northfield
JOHN F. HAGERTY.....Newark
D. LEO HAGGERTY.....Trenton
JAMES HUNTER, JR.....Westville
CHARLES J. LARKEY.....Bayonne
GEORGE H. LATHROPE.....Morristown
A. HAINES LIPPINCOTT.....Camden
JOSEPH F. LONDRIGAN.....Hoboken
ANDREW F. MCBRIDE.....Paterson
B. C. MCMAHON.....Morristown
J. BENNETT MORRISON.....Newark
JOSEPH R. MORROW.....Oradell
EPHRAIM R. MULFORD.....Burlington
WILLIAM E. RAMSEY.....Perth Amboy
DANIEL F. REMER.....Mt. Holly
JOHN N. RYAN.....Passaic
WILLIAM G. SCHAUFFLER.....Princeton
JAMES P. SCHUREMAN.....New Brunswick
MILLARD F. SEWALL.....Bridgeton
ELBERT S. SHERMAN.....Newark
GEORGE T. TRACY.....Beverly
CLARENCE W. WAY.....Sea Isle City

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.

NOW IN OUR NEW LOCATION

Accurate Prescription Glasses

As we do not sell glasses without a prescription we depend upon the Oculist for our business.

The Oculist and patient can rely upon us for absolute accuracy and service.

All lenses are ground to precision in our own Laboratory. Ours is the oldest optical house in New Jersey, having been established in 1892. Our new building is designed to render increased service and efficiency.

New Location
10 HILL STREET
One door from Broad St.
NEWARK N. J.

J. C. Reiss Optician

Hill Street
Is on the West side of
Broad St.
Opposite City Hall
Where parking is possible.

Member of the Guild of Prescription Opticians of America.

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103. Act of Oct. 3, 1917, authorized July 29, 1918

Vol. XXVI., No. 2. Orange, N. J., February, 1929 Subscription, $3.00 Per Year Single Copies, 30 Cents

LIBRARY

CONTENTS

ORIGINAL ARTICLES— Page

Illumination and Asthenopia—Dr. Elias J. Marsh 93

Prevention and Special Treatment of Scarlet Fever—Dr. Edwin H. Place 102

Experience with Special Biologicals in the Treatment of Pneumonia—Dr. Russell L. Cecil 111

Splenectomy for Hemorrhagic Purpura of Childhood—Dr. Walter Blair Stewart... 116

Thymic Enlargement—Dr. Harry B. Silver 124

ORIGINAL ARTICLES— Page

Anomalous Peritoneal Membranes — Dr. Francis H. Glazebrook 130

Diagnosis and Treatment of the Tachycardias—Dr. Louis Levin 138

Certain Relationships of Gastric Hemorrhage and Gastrostaxis—Drs. C. A. Pons, B. M. Meine and V. A. Blenkle 143

A Modified Ureteral Catheter for Bladder Drainage—Dr. George T. Spencer 149

The Diazo Test in Nephritis—Dr. Robert A. Kilduffe 150

Continued on page VI.

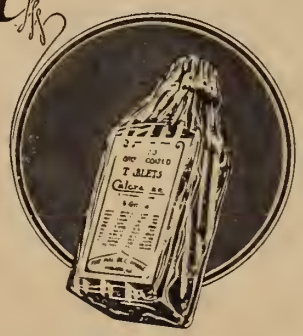
in Influenza

CLINICAL experience during influenza epidemics demonstrated the value of Calcreose in this disease and its pulmonary and intestinal complications.

Persistent coughs and bronchitis are particularly amenable to Calcreose.

The MALTBIE Chemical Company
Pharmaceutical Chemists
NEWARK, NEW JERSEY

Tablets Calcreose 4 grs.
Each Tablet Calcreose 4 grains contains 2 grains pure creosote combined with hydrated calcium oxide. The full expectorant action of creosote is provided in a form which patients will tolerate.



COMPOUND SYRUP OF CALCREOSE
Also available . . . Compound Syrup of Calcreose, Maltbie, for the lesser ailments of the respiratory tract . . . a tasty, effective cough syrup that does not nauseate . . . each fluid ounce representing Calcreose Solution, 160 minims (equivalent to 10 minims of pure creosote); Alcohol, 24 minims; Chloroform, approximately 3 minims; Wild Cherry Bark, 20 grains; Peppermint, Aromatics and Syrup q. s

Liberal samples of tablets & syrup to physicians on request

CALCREOSE MALTBIE

ATROPHY

"Maltose is indicated in very difficult feeding cases and in severe cases of malnutrition and atrophy. It is part of the routine in the treatment of chronic indigestion from fat. Carbohydrate indigestion is more frequently seen in cases fed on lactose or on cane sugar: in such cases maltose is indicated."

MEAD'S DEXTRI-MALTOSE

MEAD'S DEXTRI-MALTOSE is usually indicated for feeding difficult cases.

While all carbohydrates can cause nutritional disturbances, it has been shown that Mead's Dextri-Maltose is the form least likely to cause such disorders as fermentative diarrhoea, indigestion in infants, having a low tolerance for sugar.

It is because this carbohydrate is better tolerated by the majority of infants with an inclination to diarrhoea that it is used so extensively in cases where such a condition has been present.

This, coupled with the fact that it can be given sooner and in larger amounts in cases recovering from nutritional disturbances, is added assurance that satisfactory gains in weight will result with less danger of a return of the complaint.

From Text Books of over a decade

THE MEAD POLICY

Mead's infant diet materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

MEAD JOHNSON & COMPANY
EVANSVILLE, INDIANA

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 2 ORANGE, N. J., FEBRUARY, 1929

Subscription, $3.00 per Year
Single Copies, 30 Cents

ILLUMINATION AND ASTHENOPIA

Elias J. Marsh, M.D.,
Paterson, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928.)

"And God said: Let there be Light." In the familiar mosaic story, this was the very first act of creation, as it may well have been by any other cosmic theory. For us, too, light is the beginning of things: without it there would be no vision, no eyes, no ophthalmology, no ophthalmologists. Lighting seems, therefore, a fitting topic to open the ophthalmologic work of this section, whether or not the present paper serves to illuminate the subject. For the paper no claim is made of presenting any new ideas, nor the result of any original investigations. Neither is its purpose to display special knowledge of physiologic optics or illuminating science by familiar reference to threshold values, luminous flux, or Angstrom units. No more ambitious hope is entertained than to emphasize the clinical importance of certain factors already well known to everyone here, but which the writer's experience leads him to believe too often overlooked, as all of us tend to overlook familiar things.

We all know that in the millions of years which have elapsed since light first appeared, by Divine fiat or otherwise, the eye has gradually evolved in free daylight, aided somewhat by the more uncertain light of night, and that mankind, as has been said, "came indoors but yesterday". Thus he grew up with an eye adapted to function best in a thoroughly diffused white light. Having come indoors for other reasons, he tried to provide himself with a substitute for the sunlight which he left outside. Disregarding, for the present, his efforts to let this light in with him, while excluding wind, rain and enemies, he found his best resource in burning wood, pitch, and fats or oil—very recently mineral oil and gas. Time lacks, nor is this the occasion, for tracing the evolution of the lamp. Suffice it to say that, until within the lifetime of many of those present, the brightest artificial light-source in common use was a flame of some kind, with a brightness never exceeding a few candles per square inch of surface, and an illuminating power so low that indoor light sufficient for fine or sustained work was hardly to be obtained. Who is not familiar with the picture of Franklin straining his eyes to study by the light of a single candle; the feeble domestic illumination almost universal till recent times? Then, suddenly, behold the incandescent filament, with illuminating capacity almost at will, and a surface brightness many thousand times not only the candle-flame but even the sunlit cloud or snow of outdoors, and rivaling the sun himself. A wonderful achievement, it was universally, if too enthusiastically, hailed as turning night literally into day, and Franklin's candle disappeared forever from the picture. Gone was the strain and struggle to see with insufficient light; to do in the long dark win-

ter hours tasks that could only be seen by day. Soon, however, was recognized another danger, of an opposite kind—the danger from excessive brightness concentrated in a small part of the field of surrounding darkness. But methods of controlling this new danger followed, in the frosting of lamps and increased use of shades and diffusing reflectors, and these are still being worked out, so that the greatest part of our present difficulty lies in the gap between expert knowledge and common practice.

In this paper, little attention will be given to daylight illumination, both for lack of time and because, though of great interest to the illuminating engineer and the architect, it is of comparatively slight importance to the ophthalmologist. Daylight is, as already said, the normal medium of the eye, and rarely causes actual eye-disorder, though if insufficient or poorly regulated, visual inefficiency and eye-strain may result. However, reference will be made to eye-strain which may occur with the fading of afternoon daylight, when through carelessness, mistaken economy, or other reason, work is continued too long before adding artificial supplementary illumination. Ferree and Rand have shown that afternoon daylight fades, especially in the winter months, faster than the retina adapts itself to the change, and that the full artificial light, which at its best is of far lower intensity than the daylight, should be switched on while the natural light is still good, to ease over the transition from one to the other. Herein lies the explanation of the afternoon eye-fatigue which annoys so many patients, rather than in the length of the working hours.

The function of light, in relation to the eye, is to enable it to see. Consequently, the best system of lighting is that which gives the best vision. So far, so good. But "best vision" is itself not so simple a matter as it sounds. Ferree and Rand give 5 different factors to be considered in estimating the visual efficiency of a lighting system: (1) Visual acuity, (2) speed of discrimination, (3) power to sustain acuity, (4) ocular fatigue, (5) discomfort in seeing. Variations in lighting conditions which produce little or no detectable effect on ability to see clearly may nevertheless produce large effects on speed vision, and still more on the remaining factors. This difference is more readily understood if we recall the 2 functions of the eye—or the functions of its 2 systems—in the act of vision: first, the resolving power of the refracting media, or ability to form clear images on the retina; and second, the resolving power of the retina, or ability to discriminate detail in the images formed. This second may be further subdivided into (a) brightness sensitivity or quantitative light-sense, (b) color-sensitivity, or qualitative light-sense, and (c) space discrimination, or form-sense. Monochromatic or "pure" light, especially in the shorter wave-lengths, gives the least chromatic and spheric aberration, in accord with the laws of physical optics, and so produces the sharpest images. But the retina functions best in natural white daylight, a mixed light but the one to which it has become adapted through the age-long evolutionary process: failing that, in yellow light, which is nearest the middle of the daylight spectrum. It is familiar experience that the bluer lights give the sharpest vision, but the amber tints are more comfortable.

In addition to the foregoing factors, Cobb and Moss emphasize the importance of the time-element in vision, but while its relative importance is great in some conditions, it is slight for our present discussion, and another time-factor forbids its consideration now.

"Best" illumination, therefore, depends partly on the conditions of use. Problems concerning the satisfaction of particular needs belong to the engineer. For us, distribution of the light, though also a problem for engineering solution, is more important than its quality or quantity. In this respect, the lighting of our ancestral home, natural daylight out of doors, may be regarded as the norm. Daylight is many times brighter than any artificial illumination: an ordinary street on cloudy days may have a brightness of 1000 foot-candles, and sunny days 5000 to 10,000, but 15 foot-candles is still a noteworthy

achievement in artificial illumination of an indoor space. So it is not the excessive brightness of artificial lighting that causes trouble. Cobb and Moss have shown by a series of tests on muscle balance, using large test objects to eliminate accommodation fatigue, that light of 100 foot-candles is no more fatiguing to the retina than 5, and another writer, commenting on the foregoing facts, has urged that 100 or 150 foot-candles be considered the standard for lighting practice, rather than 12 or 15, which he considers a humiliating confession of failure. (It will, of course, be understood that this refers to the general brightness of the illuminated field, not to local areas.) So the assertion sometimes made, that our fathers suffered from too little light but we are in danger of too much, is based on a misinterpretation, as we shall presently see.

Returning again to daylight, we find that in addition to brightness, it has the quality of almost perfect diffusion. Except in direct sunlight there are no shadows, no specular reflection, and no contrast between lighted and dark areas—not to be confused with light and dark objects in the field. Even the shadows of sunlight are only relatively dark, being in fact brightly lighted by the diffused daylight. It is this soft and even distribution which artificial lighting most signally fails to reproduce in ordinary practice, notwithstanding some very creditable progress in special installations, and to this failure is due the glare which is responsible for most of our troubles.

Everyone knows, in a general way, something of the nature and action of glare. Everyone knows, for instance, what happens when he drives at night in the face of opposing headlights, although all day he drives with no trouble in the face of a light many times brighter. But no satisfactory definition of glare has yet been framed, in spite of many efforts by authorities to do so. For present purposes, glare will be considered to be the concentration in a part of the visual field of such proportion of the total actual brightness as will, by contrast, cause discomfort, or lessen the visibility of the remaining part. Otherwise expressed, it is the visual effect of an insufficient diffusion of light, from improper position of the light-source, or incomplete dispersion by surrounding surfaces. Luckiesh and Holladay have distinguished veiling glare, dazzle glare, and blinding glare. Essentially, glare is a contrast effect—a disturbance of balance between light-source and surroundings. A striking demonstration of this is found in the fact that workers in testing rooms of lamp factories suffer comparatively little discomfort in a room full of lamps any one of which, alone, produces almost intolerable glare.

To work well, the eye must have sufficient light to see clearly, quickly, and without fatigue. Ferree has shown that increased intensity of light is of relatively greater benefit for fine detail than for ordinary work, for ametropic eyes than for emmetropic ones, and for old than for young. On the second of these points he has based his method of using graduated illumination as a test for the correction of astigmatism; the more exact the correction, the lower the intensity under which the test object can be discriminated. Work on dark material requires higher illumination than on light material. Sheard has estimated that the reflected light from the working surface should be from 2 to 5 candles per square inch. As already said, there is no danger from too much light, if properly diffused. Reference has also been made to the difference in surface brightness between the Mazda filament and flame, as, e.g., in an Argand burner. The limit of safety in this respect is not known, but qualified judges have held that good practice will not exceed 20 candles per square inch, or about that of sunlit cloud.

Direct glare from the light-source is therefore to be eliminated by veiling the source to reduce the surface brightness to the limits just given, and by placing it against a background of not too contrasting darkness. As expressed by Luckiesh and Holladay, a light-source which is unpleasant to view against a field of low brightness may be made pleasant by either increasing the brightness of the field, or by

viewing it from a greater distance or moving it to the periphery of the field. They state that dazzle glare practically ceases when the light-source is more than 30° above the line of vision. Ferree, in a detailed study of this phase of the subject, finds that the maximum sensitivity to brightness discomfort is outside the center of vision, at a point about 15° horizontally, in both directions. It is greater temporally than nasally, and in the lower field than in the upper. He adds: "Footlights, so far as position is concerned, are the worst lights that have yet been devised by the misdirected ingenuity of man to confound and torture the eye. Next, perhaps, in this regard, are the lights in the motion picture studio, and a close third are bright lights dropped from the ceiling of the ordinary living room." A bright light falling on a sensitive part of the retina will cause a sharp contraction of the pupil: a reduction of the pupil by one-half means a reduction, by three-fourths of the light entering the eye from the working surface, giving the same effect of reduced vision that causes complaint in patients under pilocarpin. With the miosis, occurs the associated accommodative spasm and resultant asthenopia. Luckiesh and Holladay deduce from this that "the size of the pupil determines to some extent the effectiveness of proper lighting, as well as the harmfulness of improper lighting. . . . . when we have completely analyzed glare and visibility, possibly the size of the pupil may be used as a means of appraising lighting conditions".

Control of glare involves also the elimination of specular reflection and the development of diffuse reflection. The former, which arises chiefly from glazed or polished surfaces, simply changes the direction of the light-beam as a whole, forming an image of the source in a new position, and is a hindrance to vision: the latter arises from matt surfaces, spreads and distributes the component rays of the beam, making the surface in effect a secondary light-source, and is of direct service to vision. We have said that glare control is an engineering problem, but consideration of certain principles is not out of place. The incandescent filament should always be enclosed in a frosted bulb or other diffusing envelope: its direct rays should never reach either the eye or the working surface. Macbeth says that no primary light-source should be visible in a mirror placed on the work-table, book, or other working plane. Except in totally indirect lighting, any shade used should be no denser than is necessary to adjust the brightness contrast between light-source and background, and should cut off as little as possible of the luminous flux from ceilings, walls and other surfaces which may aid diffusion. Too many luminaries on the market, especially the portable floor and table lamps generaly sold in furniture and department stores, are very defective in these respects. Designed largely by decorators, they may be ornamental, but as lighting apparatus many of them are crying shames. Finally, care should be used to prevent specular reflection from polished surfaces, as window and picture-frame glasses, polished table-tops, and glazed paper in books. Totally indirect illumination is the ideal method, but its operating cost is relatively high, and some additional local illumination will usually be required for fine detail work. Some form of general lighting of the room and not only of the working field should always be used, both for avoidance of contrast between bright center and dark periphery, and also, as pointed out by Ferree, for the general mental stimulation which bright surroundings give. This is a phase often overworked by students and night-workers who, for reasons of economy, fancy, or habit, sit under their own lamps in surrounding gloom. This has no relation to contrast lighting, which is sometimes used to bring out detail, as in the slit-lamp beam as used with the corneal microscope, to take a familiar instance, nor to the darkened theatre which increases the lighting effect on the stage. Yet even this latter is chiefly to remove the veiling glare of the theatre lights. Compare the visibility of the actors on the best-lighted stage with that of a football game, with teams and spectators both in full sunlight.

With the foregoing in mind, and knowing

from experience the lighting arrangements common in the homes, offices, and other resorts of our people, it seems that we do well to be interested in the lighting conditions of some of our asthenopic patients. I do not think it has ever been satisfactorily shown that eye-strain, whether from poor lighting or from other cause, actually produces pathology in an otherwise healthy eye: its causal relation to myopia has, indeed, been often asserted, but I cannot learn that it has ever been demonstrated. But poor lighting can, as we have seen, produce eye-strain, discomfort, and fatigue, and it is, in many cases, as well worth attention as refraction or muscle balance. In support of which proposition, I wish to report 5 selected cases, illustrating different phases; 2 of them, indeed, are by all rules unsuited for quotation, being incomplete and inconclusive, but each is used for a definite purpose.

Case Reports

Case 1. A young bank clerk, careful correction of whose refraction failed to relieve his eye-strain. It happened that I was able to make a personal investigation of his working conditions. His desk being in a rather dark place, a light bracket hung down over his ledger, shaded from his eyes, but throwing a bright light directly on the page, which was tilted forward, as ledger desks are made to do, thus reflecting the glare into his eyes. A better lighting arrangement afforded prompt and marked relief.

Case 2. A young woman who had been under my care for some years, with some astigmatism and slight muscular imbalance, for which she had worn several slightly different combinations of cylinders and prisms, with a fair degree of comfort. About 4 years ago she returned to say that she was having considerable discomfort at her work. After checking up her correction, I inquired about conditions in the office where she was employed, and offered some suggestions regarding improvement in the lighting arrangement, as she described it. She found that some of those working with her also suffered from eye discomfort. Being the head of her department, in a large and well-managed business, she consulted the superintendent, who sent for an illuminating engineer and had the lighting system improved. Since then, my patient has had no further eye trouble, has been interested in the lighting of her own and her friends' homes, and reports satisfaction among her fellow-workers.

Case 3. A college student came to me last autumn complaining of asthenopic symptoms after study at night. He had been refracted by a competent New York oculist, who had made 2 or 3 slight subsequent changes in his cylinders without giving relief. Revision of his refraction having shown his correction to be essentially accurate, I learned that he was in the habit of studying with a 75W type C bulb in a goose-neck table lamp in front of him, shaded from his eyes but shining directly on his book, and no other light in the room except a similar arrangement on his roommate's desk. I advised him to use a 40W frosted lamp, change the position of his desk light, and have some general illumination of his room. Four months later, he reported that he had carried out my suggestions, with almost entire relief, and much interest in the subject.

Case 4. A tailor complained of great difficulty in seeing his work, and marked eye-fatigue. Refraction under cycloplegia showed him emmetropic; vision, accommodation, and muscle-balance were normal. Working much on dark cloth, he used a clear glass type C lamp, "the strongest he could get", dropped over his table, and gradually lowered to within a foot or so of his work in order to get "enough" light. Explaining to him the nature of his mistake, I referred him to a lighting expert of my acquaintance, but have heard nothing more of him. This case is thus incomplete, but is quoted to show the possibilities of vicious practice. An excessively brilliant unshaded light-source had gradually attained a position which must have been very near Ferree's point of maximum retinal sensibility, and produced a pupillary spasm which

shut out most of the little light reflected from a black working surface, with associated ciliary action. No wonder he could not see.

Case 5. A rather nervous clerk, aged 27, with a slight astigmatism which had been corrected before he came to me, complained of eye pain and fatigue. A convergence insufficiency of 7° or 8° was relieved by 2° prisms, and 2 months later he had no more pain, but eyes still tired. He then inquired if poor lighting in the office might be responsible for his symptoms. Asked the reason for his question, he said he had read an article on the subject in a business magazine, and had spoken of it to some fellow clerks. One man, who had been there 20 years, had no complaint, but the others took it up with the management, who sent for illuminating engineers in consultation. When preparing this paper, I made inquiries as to results, and learned that work on the new system is in progress, but not yet complete. Clinically, therefore, this case has no value and no standing. It is quoted only to show that knowledge of the subject is spreading, and we may yet find our patients ahead of us in this respect. Incidentally, I might mention that the President of the Illuminating Engineering Society, Mr. Norman Macbeth, addressed the optometrists' convention by invitation in Boston recently. The various efforts to increase popular interest are too familiar to require mention, and while they may not be wholly disinterested on the part of the electric light companies, they are entitled to our hearty support.

The twentieth century has been credited with changing the old maxim "If you wish a thing well done, do it yourself" into "if you wish it well done, hire an expert". We claim to be expert in all troubles relating to eyes. Here is one trouble that I fear is sometimes overlooked. Perhaps not, but in any case it is one that often requires expert attention. Now, I am not urging that we add lighting as one more to our subjects of expertness. There is no need of that. The profession of illuminating engineering is wide awake and rapidly advancing without our help, though doubtless they could profit by more coöperation. Many illuminating engineers can tell us things about ophthalmology that we ought to know, but have somehow overlooked. Unfortunately, as the science is still comparatively new, its practitioners are relatively few, and the public is forced to rely too often on electrical contractors and fixture salesmen, some of whom know as much of scientific illumination as a chiropractor does of scientific medicine. But fortunately many of them are learning, whether the chiros are or not. Schools and classes are doing much to spread knowledge of the better way, and great efforts are being made to introduce a knowledge of good lighting into homes. Our respect and good will are due to the Illuminating Engineering Society and similar bodies, for their work in the interest of our patients. And often we can do as much for our patients by calling on them as on our older friends, the pharmacist and the optician.

DISCUSSION

Dr. E. S. Sherman (Newark): Dr. Marsh is right in assuming that this is a fitting topic to open the work of the Ophthalmologic Section, and he has done a real service in reminding us of the often-forgotten fact that the treatment of eye-strain symptoms should include more than the measurement and correction of errors of refraction and heterophorias. The relief of asthenopia is a large and important part of the work of the ophthalmologist. Duane has said that "asthenopia is the commonest of all eye symptoms and the one that is most readily relieved by proper treatment, which consists essentially in removal of the cause". The symptoms are protean and various; mild and unimportant in some cases, in others totally disabling. It may be due to refractive errors, particularly hyperopia and astigmatism; imbalance of external ocular muscles; toxic conditions; reflex irritation from pathologic changes in other parts of the body, especially the nasal accessory sinuses; nervous causes, such as hysteria and neurasthenia, and, finally, coming back to the subject of this paper, it may be photogenic, that is, caused by insufficient, excessive, or improper illumination.

Faulty illumination as a cause of eye-strain is very often overlooked. In the case of patients who are not relieved by accurately fitted glasses, or those without apparent ocular defect but having symptoms suggesting eye-strain, especially those doing continuous close work, inquiry and, if necessary, suggestions, should be made concerning the lighting conditions under which they work. The eye is very adaptable in its ability to see clearly under widely varying conditions of illumination, but the efficiency of the lighting is judged not alone by its effect on visual acuity, but by ability of the eyes to function comfortably and without fatigue.

Eye-strain with resulting fatigue and exhaustion may be caused either by too little illumination or

too much, if, in the latter instance, it is not properly controlled, particularly in regard to location of the light source and good diffusion, or in other words, the elimination of glare. Faulty over-illumination causes fatigue by pupillary spasm and exhaustion of the photo-chemical elements of the retina, while the ill effects of under-illumination are caused by increased accommodative effort and attention. Eyes that are handicapped by astigmatism and other refractive errors, suffer most from poor lighting.

In recent years considerable research and investigation have been done to determine what intensities of artificial light are best for various occupations. In industrial plants, the tendency today is toward higher intensities. Modern methods of mass production have been responsible for this. Speed is essential. It has been found that increased and properly regulated illumination not only increases production and accuracy, but has a marked effect in decreasing the number of accidents, and in promoting better health conditions and contentment. The beneficial effect of good illumination on the health and safety of workers has been recognized in many industrial centers by adoption of lighting codes.

In regard to the possibility of eye-strain from poor lighting, or other causes producing disease in an otherwise healthy eye, Dr. Marsh is conservatively uncertain. Many writers mention various pathologic conditions of the eye, which they assert are directly or indirectly due to this cause, but most of them are not very convincing, their logic often being of the *post hoc ergo propter hoc* variety. However, I think it is not unreasonable to believe that there may be a causal relation between poor illumination and myopia.

Concerning this, Clark, in "Lighting in Relation to Public Health", says: "The development of myopia ..... is attributed, as a rule, to a combination of hereditary tendency and over-use of the eye, the strain from over-use being greater when the eye is used in a poor light."

Mr. A. L. Powell (Harrison, N. J.): Gentlemen, it is a real pleasure to be here as a member of what is certainly a brother profession. I doubt if there are any other 2 professions working as closely as the ophthalmologist and the illuminating engineer. I think Dr. Sherman and Dr. Marsh will bear me out in that respect for they are quite familiar with what we are trying to do.

Of course I, personally, am part of a commercial organization; our business is to make and sell lamps. It was a matter of fully 20 years ago that we recognized that we would sell more lamps if everybody used lamps correctly, for nothing defeats our business to a greater degree than improper use of our product. As an illustration, I remember an instance about 10 or 15 years ago when a group of investigators in lower New York looked over the office lighting conditions and reported with great scare lines in the newspaper: "MAJORITY OF OFFICES IN NEW YORK OVERLIGHTED". We followed that up with an investigation with the illuminometer to read the degree of illumination, and found that these offices that were supposed to be overlighted were distinctly underlighted in comparison with the standards then in force, which, in passing, were just about one-third of what they are now, but every one of these offices was glaringly lighted. People in these offices were not only suffering from insufficient illumination on their work and inability to see detail clearly but almost every one had directly in the field of view some glaring lights. The investigator went into a given office never thinking how much light was on the work, merely looked at the room saw the glaring lights and wrote down "overlighted", and so on, through the whole series. That is one trouble with the public; if they have bright lights they think there is overlighting, whereas the real test is the amount of light on the work. Thus, your work and ours unfortunately go on as the result of that misconception.

Back in 1907, the Illuminating Engineering Society was formed as the first organization to really incorporate all the elements—architectural, engineering, decorative and physiologic phases—of the subject, and that society has been doing a truly remarkable piece of work gradually enlarging its own knowledge, gradually disseminating this data and putting into effect through state legislatures codes for better lighting in factories, offices, schools and places of public assembly.

We are trying to spread this gospel for better lighting in every possible way. In my own Department, for example, I have some 30 or 40 engineers who are going out over the entire country talking to Boards of Trade, Chambers of Commerce, Rotary Clubs, Women's Clubs, and the like, constantly stressing the subject of "good lighting" and bringing out the very elements that Dr. Marsh so effectively put forth in his paper. We culminate all that work, both at Harrison and at Cleveland, in 2 unusual demonstrations which we call Lighting Schools or Lighting Institutes; and, in passing, I would like to extend an invitation to all of you gentlemen right here in New Jersey to come to Harrison and see what we have there. Dr. Sherman has been there half a dozen times; and I don't know how many times Dr. Marsh has been there. It is the first instance known to me, of an art and a science being combined from the most elemental steps up to the finished application of the product. In the Institute we analyze the physical qualities of light, the physiologic and the psychologic qualities. We show development of the product, and then, finally, the actual definite installation in practice far ahead of what is adopted generally in the home, office, school, theatre, church, industrial plant, in the sign and the exterior decorative lighting, giving a complete picture of application of light in a very novel manner.

We get possibly 15,000 visitors a year there, each one of whom spends on the average about 3 hours, and they go away with a much clearer picture of what light will do in their lives than they ever possessed before.

In our daily work we have a great many problems, and we do our best to overcome some of these unfortunate tendencies of lighting practice. We can illustrate this point most directly by referring to our homes. For example, let your mind run back a few years and you will recall that when the Mazda lamp first came on the market it was far brighter than anything that had been commonly used for lighting purposes. First, we started to put it in the regular fixtures such as we had for the old carbon lamp; which were relatively dull in comparison. Everyone recognized that was too bright and uncomfortable and there came into use a system of lighting which we called semi-indirect. You remember those white bowls which we put under the lamp, throwing the rays direct to the ceiling and then down on the work. That was splendid illumination and it spread like wildfire over the country. Then what happened? The housewife liked this sort of lighting so a lot of people in our industry said, "Here's a chance

to make a killing". Instead of making something goodlooking, they proceeded to make very cheap ugly fixtures which gave good illumination but were most inartistic.

Then they started to sell these same fixtures to the barber, the bootblack parlor and the butcher, and the housewife began to see the same thing in the stores that she had in her own dining room, and she said, "That fixture is too cheap and it's about time to get a new one". She went down to the fixture manufacturer who had seen his business slipping away due to the fact that anybody could make up one of these white bowls, so he sold the housewife a ceiling plate with 4 or 5 round bulb bare lamps sticking out. She took it home and had it installed. She had been told by the fixture manufacturer that this was the latest and best thing she could get, and she believed him. When she turned on these lights, they were glaring, uncomfortable and annoying. She had the best thing, according to the fixture manufacturer, so she immediately decided that center fixtures were all wrong, and the next thing that came along was this practice of building homes with no ceiling outfits but depending for their light on portable lamps alone, and possibly having some wall brackets. That was an unfortunate day for our business and for your business because the natural way of getting lighting in the home for eye comfort, to my mind, is a generally distributed illumination of suitable level and suitable diffusion. I don't say that is ideal for all purposes. For example, consider our living rooms and the things that have brought us up to our present practices. If you go back to the home of your fathers, there were the following rooms: the front parlor, used only on Christmas, New Year's and for weddings and funerals; the library or the back parlor; probably a lounge, or else a music room. Now, we have taken these 3 or 4 rooms, due to the fact that we cannot get servants, and concentrated them into 1 room and called it the "living room", making the lighting problem 3 or 4 times as difficult as it was before. When used as a music room, there should be a few light ornaments scattered around; as a library, suitable table and floor lamps to give just a glow and touch of color; but there is still that other use of the room which we all overlooked when we climinated our ceiling fixtures, that is, its use as a general parlor, for a bridge party, dance or a general gathering. For this use you need good general lighting from a ceiling fixture.

If you want to have an idealy lighted living room you must have all these things—brackets, table and floor lamps, decorative light sources and general illumination—but for the great mass of the common people who can't have a multiplicity of systems there is only one system, according to my notion, that will meet all of these requirements, and that is good general lighting from overhead. It gives you suitable lighting for reading, if properly diffused and distributed, and will do for all other purposes. So we are preaching right now for the public to come back to good common sense in lighting. We are trying to develop semi-indirect systems which are not only decorative but efficient and effective from the standpoint of eye protection. We are working with you hand and glove to the best of our knowledge and doing all that we possibly can do to protect the eye, because the more the eye is protected the more our business is going to grow.

Chairman Emerson: This very interesting paper is now open for general discussion. Does anyone wish to discuss this paper? If not, I can add 1 case to those Dr. Marsh has cited.

This was the case of a bank teller who complained that he had terrible asthenopia in the afternoon. He had been to a number of oculists. He had a negligible error of refraction and in checking him up I saw no necessity for changing his glasses and questioned him relative to his lights. I couldn't ascertain that his lighting was improper, but finally discovered that his bank was on the east side of a street in New York, his window faced the front of the bank, and in the afternoon the sunlight poured in through those windows and struck the white tile floor and came right directly into his face, and he said that the last hour or two at the window it seemed as though he would collapse from the terrific strain of that light. I suggested to him that something be done in the line of curtaining that window, and he said the bank directors would certainly throw up their hands in holy horror after spending thousands of dollars for an ornate white palace to have a curtain put up so that the public couldn't look in there. After consultation with one of the officers I suggested a green shade be made so that it could be drawn up from the bottom with a pulley about 2½ ft., enough so that people who walked along the street could look over that shade and yet was high enough to cut off the sun's rays from striking on the floor, and in that way he was entirely relieved of his trouble.

Dr. W. Blake Gibb (Morristown): I should like to inquire from Dr. Marsh what relief is obtained from the use of tinted lenses in cases of asthenopia with a spasm of the pupil caused by faulty illumination?

Dr. Albert Pilkington (Atlantic City): I am somewhat disappointed in this paper, because of something omitted. Of course you know the tendency of the Section on Ophthalmology of the American Medical Association is to bring lighting very much to the fore. I think the question of the individual, of the size of the pupil, and directing the light rays away from the center of vision, are all things which must be considered. The dazzling light from the crossing of rays of light, and the glare, tend to cause irritation and inability to accommodate the eye. Too much peripheral involvement of the eye from bright lighting will, I think, account for many automobile accidents. Most of us who are using the slit-lamp naturally see objects with a very dim reflected light off the background very much more clearly than we do with the direct light and it is a question if the prismatic breaking up of the direct light ray from the headlight of an automoblie is not very likely responsible for a great deal of this glare that we are taking in. We are lighting up too much of the road with rays of light which are crossing too close to the eye and involving the periphery of the eye.

The question of myopia and light disturbance was mentioned; also enlarged pupil and the question of pigment in the retina. The individual who

wears a +6D. lens with probably a 2 diopter cylinder, with some diffraction of light in the cornea or maybe little vacuoles in his lens, and then comes up against a great deal of cross light from an automobile suddenly thrown on the retina after it has been looking in practically a dim light is the one we must consider. I think the profession will have to go very much more into this question of the effect of light on the individual; not so much what the house is going to do or what is good for the business men. There are many things that enter into it. For instance, as I sit in this room here the question of the detail of this globe is very disturbing to me. When I want to take my eye away from it and relax it for comfort, I find myself looking at the detail of the globe. That is something which may have a great deal to do with our patients' discomfort in their work and in the things they do. In other words, whether or not the whole lighting system is being looked at from the standpoint of the patient rather than from the standpoint of the general lighting system.

Very little was said about color. We are up against this question of sunlight and sun treatment, and whether or not we are overlooking the question of disturbance of the retina from the red rays or the various rays which are disturbing to the eye, and whether the engineer is being properly guided in that in his effort to do certain things.

Dr. Elias J. Marsh, (Closing discussion): Mr. Chairman, I most thoroughly sympathize with the last speaker in his disappointment with the paper. I am disappointed with it myself but I would like to say this much in explanation of his disappointment and mine: That it is impossible in 20 minutes to fully cover an enormous subject like this. There was a great deal that I had to leave out. that I wanted to put in when writing the paper. Especially his reference to the use of the slit-lamp is covered in the paper, but I had to leave it out in reading for lack of time. Of course when you use a slit-lamp you are using it for a particular purpose and effect. You can for certain purposes of sharp detail get an effect from contrast of light, because you want to shut out everything else. This is a special condition that is referred to in my paper as it will appear in print.

There was also the question of the condition in a theatre to which I also referred in the paper but could not read because of lack of time, where the lights of the theatre are dimmed so as to bring out more fully the illumination of the actors and the scenery on the stage, but the reason for that again is different. That is a question of avoiding the glare of the lights in the house and also to hide the audience. If the theatre were properly lighted that wouldn't be necessary.

Concerning the question of effect of diffusing light and its action on the pupil rather than the bright concentrated light, you to some extent see the difference illustrated in the exhibit down here, but it is a question again of a sharp reflection falling upon a particular point of the retina and making contrasts there as in distinction between a general light all over the room, and as the last speaker said, again bringing out another point, the question of contrasts on different parts of the retina; that is a question of retinal adaptation to a consistent, relatively high intensity light, in comparison to the position where you get a low light in part of the field and a high light in another portion, and you are constantly shifting your vision, as Mr. Powell said a few minutes ago, from one to the other.

I would suggest that anyone who is interested in the question of automobile headlights, or any other phase of the lighting subject, look up the Transactions of the Illuminating Engineering Society and see what has been done and what is being done by those men, for it is well worth the oculist's while to know. They are working hard and have done a great deal of valuable research and experimental work on this very question of automobile headlighting.

Also the question of factory lighting and the question of not only artificial lighting but also of day lighting in schools and offices, such a question as Dr. Emerson referred to just now, is covered by a great deal of their work.

There is a point of interest to all of us that we might well take into consideration; that is the question of illumination in the schools of our state. Mr. Blackwell, of the Public Service in Newark, read a very interesting paper some few years ago before the Sanitary Association on the question of "Day Lighting in Schools", and the interesting point he brought out was this: That day lighting of schools is provided for to some extent by the lighting code which requires that a certain amount of window space shall be in every school room, but there is nothing to prevent just what we have here, namely, a wall of a high building right opposite which shuts out most of the light from those windows that are provided, and although the Illuminating Engineering Society has worked out a code for artificial lighting in the schools, there is absolutely nothing in our school building law that requires a single candle in the way of illumination in a school building during the many days when it is cloudy, or dark when a storm comes up and the children can hardly see what they are reading in their books.

I am very much obliged to everyone who has taken part in the discussion and to Mr. Powell. particularly, for coming here, but it is a question which is too large really, Mr. Chairman, to cover in a few minutes' presentation of a paper.

I overlooked answering Dr. Gibb's question concerning the soft light and Crookes' lenses being used. That is a question which I think depends largely on the particular individual. The purpose of the Crookes' lens is, of course, to cut out the excess of the ultra-violet rays. In the natural light, and to some extent in the artificial light also, with the high intensity, there is a good deal of ultra-violet in the artificial light but not so much because one of the great difficulties of the artificial illumination is that there is much more of the red. It takes too long to go into the details now, but I would be very glad to call his attention to the research work that is being done by Macbeth along that very line on the question of artificial day light. We all know that the Crookes' glass is valuable in work out-of-doors. During the war I was in a Base Hospital in southern Mississippi where the country is a good deal like a large part of the country in France; that is, there is a white clay soil. A good many of the men suffered from the glare from the white soil. We got the Government to issue spectacles for such men as needed refractive correction. We tried to get them to issue Crookes' glass in cases where we thought it was necessary but we couldn't get them to do that and a great many of the men there were willing to pay for and buy their own Crookes' glasses in preference to accepting the ordinary optical glass issued by the Government. I think that is one testimony of considerable value as to the merits of the Crookes' glass.

PREVENTION AND SPECIAL TREATMENT OF SCARLET FEVER

Edwin H. Place, M.D.,
Boston, Mass.
Assistant Professor Pediatrics, Harvard Medical School

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

The rediscovery of scarlet fever antitoxin through the researches of Dochez and the Dicks has put a new responsibility on physicians dealing with this disease. It is not sufficient to place the patient under favorable conditions for recovery and wisely watch the course ready to aid as opportunity arises. The first decision must be whether he shall have the specific antitoxin, and this must be based on a knowledge of what benefits may be secured and what harm may result from such treatment.

It is still too early, perhaps, for a dependable evaluation of scarlet fever antitoxin. The difficulties are many: (1) The disease has a low mortality, usually from 1-4%, and a large number of cases must be treated to demonstrate the benefit. (2) Deaths from the disease are rarely due directly to the toxin but usually to bacterial invasion, in this respect differing markedly from diphtheria. (3) It is still difficult to determine the type of hemolytic streptococcus usually causing the serious and fatal complications in this disease.

The effects of antitoxin on the toxemia of this disease are readily seen. Without exception, the relief of strictly toxic effects is rapid and complete and constitutes one of the most striking therapeutic results in medicine. For the severest toxic cases it is undoubtedly life-saving.

Results appear in 4 to 12 hours after treatment and subsidence of toxic manifestations —fever, headache, malaise, delirium—is complete in 24 to 48 hours. With intravenous administration the results are somewhat quicker, subsidence usually beginning in ¾ hr. The much more rapid appearance of benefits of scarlet fever antitoxin, as compared to diphtheria, is due to the very rapid action of scarlet fever toxin. Experimentally, scarlet fever toxin reaches the height of its action in 20-24 hr. in almost every instance, so that when adequate antitoxin is given new toxic effects rarely follow. In general, the severity of the toxemia may be measured by the rash but not infrequently severe toxic symptoms—high fever, persistent vomiting, diarrhea and prostration—which are promptly and completely relieved by antitoxin, occur in cases with very sparse rashes.

In treated cases the reduction in fever was as follows: Temperature to normal within 12 hr., 20%; 24 hr., 44%; 36 hr., 57%; 48 hr., 80.5%; 4 days, 90%; no effect, 10%.

The rash subsides with great rapidity, usually within 24-48 hr. It is often impossible to make a diagnosis 24 hr. after antitoxin has been given. The throat symptoms, if unaccompanied by membrane and swelling, subside as rapidly. In surgical scarlet fever, the improvement is often miraculous; not only do the toxic symptoms subside rapidly but the severe advancing wound infection rapidly clears. Unfortunately, this does not always occur but, as a whole, this group of infected wound cases, including the puerperal state, constitutes the most striking exhibit of the life-saving value of scarlet fever antitoxin.

In cases showing bacteriemia or severe local inflammation of the throat or neck, often no effect, or only a transient effect, is noted of the serum. In our cases there are present instances of the least favorable effect of antitoxin.

The influence on mortality is not so readily shown. Selection of cases for treatment is likely to result in securing a large number of severe cases and putting the milder cases in a central group. During the first 2 years, this resulted in so unfavorable a comparison of treated and untreated cases that antitoxin could not be shown statistically to be of benefit; in fact, the treated cases were in almost every respect worse than the controls.

During the past 2 years we have attempted to secure a more reliable comparison but the

attempt has not been entirely successful. In the main, the severer cases tend to get into the treated group and, also, an unfavorable course in an untreated case often leads to the administration of serum even though late; after all, we are clinicians.

Of 800 recent cases only 16.5% were treated. The death rate in the serum group was 6.8% and in the control 1.2%. If incidental causes of death were excluded, however, such as tumor of the brain, measles and pulmonary tuberculosis, the death rate was 4.5% in the antitoxin cases.

The greater severity of the treated cases is seen in the following comparisons: Temperature of 102° or more; treated, 66%; untreated 15%. Septic throat complicating; treated, 30.4%; untreated, 7.6%.

If we compare the treated and untreated cases having a primary temperature of 102° or higher we find: Mortality (treated) 7%, corrected mortality 4.5%; (untreated) 5.6%, corrected, 4.8%. While not greatly encouraging and at variance with other reported results, that is the best our records will show.

Effect on complications. We have been unable to show any uniform effect on complications already present. It must be kept in mind that marked and sometimes sudden improvement occurs frequently in scarlet fever without specific treatment. In this series, in cases with local sepsis at time of treatment, there was: Rapid improvement in 48%; slower improvement in 36%; no definite improvement in 15%. In many showing rapid improvement, however, later septic complications occurred; fatal in 12% of them.

It is most disheartening to have these patients, making an extraordinary recovery after serum, later develop serious, and not rarely fatal, complications in from a few days to 3 weeks. Some examples of this may be given.

A boy of 17, with marked scarlet fever, received antitoxin on the fourth day; rapid complete subsidence of all symptoms; on the seventh day otitis media lasting 10 days; on the twenty-first developed streptococcic meningitis which was fatal in one week; the ears entirely clear and no mastoid symptoms.

A man of 47, having previously had a nephrectomy, was given antitoxin on the second day. Although there was swelling and membrane in the throat there was rapid improvement and complete recovery in 2 days; in 7 days fever and urticaria appeared; during the next 5 days rapidly developing septicopyemia occurred, with death on the thirteenth day.

In the prevention of complications, the results are also difficult to determine. Otitis media, one of the commonest complications, occurred after admission in 8.8% of the untreated cases and in 6% of the treated. But if the otitis media both before and after admission is considered, we have: treated cases 9% and untreated 11%.

Comparison of treated and untreated cases as regards complications:

	Before Adm.	After Adm.	Both
Otitis media	Per cent.	Per cent.	Per cent.
Treated	6	3	9
Untreated	2.2	8.8	11
Septic throat			
Treated	21.8	0.75	22.5
Untreated	4.2	0.75	5
Cervical lymphadenitis			
Treated	4.5	7.5	12
Untreated	1	6.5	7.5
Mastoiditis			
Treated	0	0.75	0.75
Untreated	0.75	1.05	1.8

In middle ear disease the results were moderately better in the treated cases, and as the difference in severity is unfavorable to the treatment group we must add this to other reports in favor of serum treatment.

In two complications, on the other hand, more favorable results are secured.

Arthritis	Before Adm.	After Adm.	Both
Untreated	0	1%	1%
Treated	0	0	0

This favorable difference may be due to errors in diagnosis as serum arthralgia may be confused with arthritis of the nonsuppurative type.

Nephritis	Before Adm.	After Adm.	Both
Untreated	1%	1%	2%
Treated	0	0	0

It is interesting that the 2 complications generally ascribed by clinicians, before the use of serum treatment, are the only ones to

yield practically completely to antitoxin in our series.

Desquamation, an enormously variable effect of scarlet fever, is reduced by antitoxin. If the serum is given very early no desquamation occurs, as a rule.

As to effect on the contagious period, we have as yet no dependable measurement. The bacteriologic method being still too difficult for us to apply on a large scale, we follow the practice of isolation until all open and discharging lesions are healed. With this practice, the average stay of treated cases was 41, untreated 42 days. Measuring the 2 commonest causes of prolonged isolation: Otitis media, untreated cases 8.8%, treated cases 6%; nasal discharge, untreated 8.4%, treated, 3%. We find a distinct influence of antitoxic treatment in reducing conditions for prolongation of the isolation period.

Dosage of antitoxin is very empiric. As in all antitoxin treatment, it is better to give too much than too little. The effects of 1 dose may be seen so readily within 12-24 hr. that a second dose, if needed, may be administered without great delay. No second dose was here given. The average dose was 26 c.c. or about 2 so-called therapeutic doses. By-effects occur with frequency and often with severity.

Well marked serum disease occurred in 27.7%, divided as follows: General adenopathy, 14%; angioneurotic edema, 5.4%; arthralgia, 19%; erythema multiforme, 19%; fever, 64%; urticaria, 54%. One case of fatal anaphylactic shock occurred. The skin reaction was positive but was considered unimportant by one of the resident staff. The serum was given intravenously in a late case with septicemia with a forlorn hope of benefit; shock occurred at once and was fatal in 5 minutes.

Incidentally, I might report a recent case of anaphylactic shock following the test dose of less than 0.1 c.c. intradermally; restlessness, substernal oppression, wheezing and cyanosis, with generalized urticaria occurred in 5 minutes. Following desensitization, 15 c.c. of serum was given with no after-effects.

Prevention

The usual general measures of prevention are still as much in need as ever. The contagiousness of scarlet fever is relatively slight. Prevalence of the disease is largely due to 2 factors: (1) Undiagnosed cases or those diagnosed late in the disease; (2) cases released before the end of contagiousness or suffering from recurrent infection, such as infections of nose and ears.

Antitoxin is the only protection for exposed cases. We have found it uniformly successful, in adequate dosage. The immunity lasts for 1-2 or more weeks, enough for a limited exposure but useless when long continued exposure occurs. In one group, where 400 were immunized with antitoxin, 10 developed scarlet fever during the following week. Tests of the antitoxin showed that the strength was so low that only 1/50 of the supposed dose was given and Dick tests showed very few had become negative. In general we have used 500,000 of the small units for prophylaxis. Serum reactions are so frequent and severe as to seriously interfere with this method, but they are becoming less marked and there is no known reason why they should not be reduced to the low level common to diphtheria immunization.

Active immunization has been of great value in the control of slowly developing epidemics among large groups, such as schools. In 3 schools, with nearly 1000 pupils, active immunization stopped further spread of the disease within 2 weeks. Only the Dick positive cases were immunized. In 1 school 39 cases of scarlet fever had occurred in a period of 43 days, 22 cases appearing within the last 2 weeks. As the disease was widespread through the school and not grouped as to classes, dormitories, dining rooms or societies, it seemed impossible to control the disease without immunization. The difficulty of finding and isolating the missed cases was enormously increased by the fact that 50% of the pupils were estimated to be suffering from upper respiratory infection. One passive immunization was a failure due, as later found, to a very weak antitoxin; 10 "immunized"

persons developing the disease during the following week. A second immunization with adequate dosage was done. In the next 2 weeks only 3 cases occurred; none of these children, for personal reasons, had been immunized. Active immunization with scarlet fever toxin was begun in 2 weeks; 8 cases occurred following the first 2 toxin injections and then no further cases appeared. No cases occurred in Dick negative individuals, of whom there were 35%.

We have found the Dick test entirely reliable as a measure of immunity. However, in 2 large series of cases which came under our observation, Dick tests with certain Dick toxins were found unreliable, both Dick positive and Dick negative cases developing the disease and subsequent Dick tests did not agree.

In the South Department, Boston City Hospital, 7.7% of the nurses on duty preceding 1924 developed scarlet fever. Since 1924 all Dick positive nurses have been actively immunized. Since 1925, when immunized nurses had come on duty in the contagious wards, only 2 have developed scarlet fever—1 in 1925 and 1 in 1928. With the first, the Dick test became again positive at the end of 11 months and she developed scarlet fever at 12 months; she was one of the first nurses immunized and only a small amount of toxin was used. The second, although immunized, has not become immune—the Dick test being positive when she was assigned for duty.

During the period 1925-1928, 4 nurses of affiliating hospitals which have not immunized all of their nurses developed scarlet fever in our wards and 60 nurses have been admitted to our wards from metropolitan and suburban hospitals which accept no contagious diseases; 11 of these were from the Boston City Hospital proper and occurred in immunized affiliating nurses from other hospitals.

Duration of the immunity has been over a year in all but 1 patient who developed the disease just 1 yr. after immunization. The dosage has varied from 5000 to 100,000 units. Reactions have been slight and nurses rarely compelled to go off duty for 1-2 days. In rare instances, generalized rashes have occurred.

Conclusions

Scarlet fever antitoxin controls the toxemia. Its influence on the complications is not yet certain and its effect on the death rate is certain only in the toxic cases. The conditions of this study are, on the whole, unfavorable for the best results with antitoxin.

Toxin immunization is an effective means of protecting against scarlet fever. The duration is still to be determined but is probably years in most cases.

Antitoxin is an efficient protection only for 1-2 weeks.

DISCUSSION

Chairman Murray: I will ask Dr. Ellis L. Smith, Medical Director Essex County Isolation Hospital, to open the discussion.

Dr. Smith: I am sure we have all enjoyed Dr. Place's discussion. It has been very instructive, much in detail, and very interesting to me; particularly so because his experiences and conclusions and ours coincide rather closely, although we haven't had experience with the antitoxin to any extent other than for therapeutic purposes.

Our policy at the Essex County Hospital has been to give scarlet fever antitoxin to those patients who are moderately or severely ill with scarlet fever. This is partially due to the fact that we, as Dr. Place stated, do not receive cases until the third or fourth day of the disease. Many times, if we saw the patient in the first or second day, when the rash was just coming out, we could give more antitoxin and undoubtedly see better effects from it.

In 1927, we cared for 951 cases. Of these, following the policy I have just mentioned, only 9% received antitoxin. It may be that as time goes along we will give a little more. As you follow our mortality and the number of serum reactions, you will see why we gave antitoxin to so small a number. Of this 9%, or 85 patients, that received scarlet fever antitoxin, 25% showed reaction; pretty close to the 27% Dr. Place speaks of. That, however, does include the mild and severe. Of this group, 5% showed severe reaction; immediate anaphylaxis. However, we had no fatalities, although 3 required administration of adrenalin intravenously.

Of the other moderately severe and severe reactions, there were those patients who suffered joint pains, general adenopahty, an urticarial rash, and severe itching, which lasts for 2 or 3 days. These symptoms are in themselves as bad as having a mild case of scarlet fever. However, it is unfair in our series of cases to compare the treated case with the untreated, because the mild cases will go along very well anyway, and in severe cases the treatment is not limited to use of antitoxin. In our experience, as the speaker stated was his, we find the moderately severe cases, those that are suffering from a marked toxemia, are the ones that respond most favorably

to treatment with antitoxin. In our few cases of puerperal scarlets, where scarlet fever antitoxin has been given, and given in those severe cases in the vein, we have had wonderful results; indeed, they seem almost miraculous. These are the cases in which we must say that scarlet fever antitoxin has apparently been a life-saving measure.

Our mortality rate in 951 cases was 1.1%, or 11 deaths; and of those, 3 were from other causes than scarlet fever or its complications, namely, appendicitis and peritonitis. Our community health statistics show the mortality for the past 14 years to have been between 2 and 3%, rarely over 2%, so in our thinking of the use of antitoxin, we can not say that scarlet fever antitoxin has reduced the mortality from 8 or 10%, which was the rate prior to 14 years ago, to the 2 or 3% of the present.

It was very interesting to me, as Dr. Place recited the instance of a man 40 years old who had antitoxin and got up a bacteriemia shortly afterward. We had a very analogous case except no bacteriemia occurred. The suppurative process over the clavicle was opened and the one in the calf of the leg disappeared, and he made an uneventful recovery.

One word about the prophylactic use of scarlet fever antitoxin. We, as I said, are primarily concerned with its therapeutic use. We do not see very much of the prophylatic, except we get the patient's story as he comes in. From what few cases we have seen, I would judge our experience has not been quite so effective as that which Dr. Place reported. I mean, I can recall a number of cases, I should say at least 3 or 4, where they had the usual therapeutic dose of scarlet fever antitoxin from 7 to 10 days prior to the time they came down with the disease.

Mr. F. J. Osborne, Health Officer, (East Orange): From the point of view of mortality, scarlet fever, as is well known, has become much less important than formerly. At the present time, deaths from measles and whooping cough ordinarily exceed those from scarlet fever. In view of this fact, the advisability of urging the use of biologic products, which are admittedly not yet perfect, might be questioned. In fact, I have already been warned by my colleagues in the state against taking too advanced a position with respect to the control of scarlet fever by active immunization of susceptible persons. We, in East Orange, have carefully watched developments in this field for several years and have refrained from encouraging the use of scarlet fever toxin on any such broad scale as has been done in diphtheria. In fact, 2 years ago, we were approached by the school authorities with the proposal that the school children be given the advantage of protection against scarlet fever as well as against diphtheria, but knowing that the one was not yet on the same scientific basis as the other and fearing to endanger the diphtheria work by urging inoculations against scarlet fever, we persuaded them to delay. Naturally, the schools are interested in school attendance. Our interest can only be that of disease prevention.

However mild scarlet fever itself may be, it is observed that the sequels are often not so insignificant. In fact, the few deaths recorded in our city in recent years have not taken place at the height of the fever but rather from kidney and heart complications which have followed a few weeks or months later. Middle-ear infection, with its dangers, is also not uncommon and in several families in which the disease appeared during the early months of 1928, atypical glands, rashes, and throat symptoms were seen, which indicate that a considerable proportion of our scarlet fever is of such character that it is totally missed in reports and may go on to a fatal termination, as a result, without the true cause ever being known. With this picture in mind, and having for years recognized the inadequacy of present isolation and quarantine methods in controlling the disease where so many atypical, missed and carrier cases exist, the Board of Health determined 2 years ago to begin use of the Dick test and scarlet fever toxin in a modest way by introducing these procedures in the Orange Orphan Home where the children for several years had been successfully immunized against diphtheria. The result of this work is contained in the accompanying table.

Dick Test and Scarlet Fever Immunizations, Orange Orphan Home

November 10, 1926

No. tested	Pos.	Pos. Pct.	No. Neg.	Neg. Pct.	No. Inoc.	Moved
59	31	52.6	28	47.4	30	1

November 3, 1927

No. retests	Pos.	Pos. Pct.	Immune Pct.	No. Inoc.	Moved	
18	24	22.2	14	77.8	*9	
No. New tests						
27	21	77.7	6	22.3	20	1
Total						
86	52	60.5	34	39.5	50	

*5 pseudos inoculated

In November, 1926, 59 children were tested; 31, or 53%, being positive, and 28, or 47%, negative. Eighteen of these children, who remained in the institution, were retested 1 yr. later when but 4, or 22%, were found still to be susceptible and 14, or 78%, immune. At the same time 27 new children were tested which, added to the first group, make a total of 86; with 52, or 60%, positive, and 34 or 40%, negative. During the past 2 yr. we have had no scarlet fever in this institution, though many of the children attend school and, particularly this year, have been repeatedly exposed to scarlet fever which has been prevalent throughout the city and produced 210 cases during the past 5 months.

With this experience before us and the scarlet fever outbreak becoming more extensive, the Board decided in February to circularize physicians and to urge them to provide similar services for their clientele whenever asked. At the same time, a circular on the subject was distributed throughout the schools and, as a result, many parents became interested and several of our physicians have begun to satisfy the demand by Dick testing, immunizing and, where indicated, using scarlet fever antitoxin for either prophylactic or therapeutic purposes. It may be said that the use of antitoxin was not stimulated in any way by the Board

of Health but has become gradually accepted by the medical profession for both passive immunization and treatment purposes even in the face of most discouraging reactions in the early days of its production.

Last month a circular letter was addressed to about 30 physicians in the Oranges who were known to have employed some of these products in their practice; 18 replies have been received and the results are appended in the following table.

Scarlet fever toxin immunizations and scarlet fever antitoxin administrations with results as reported on a questionnaire circulated by the East Orange Health Department, by 18 physicians practicing in the Oranges.

	Physicians No. patients tested	Results Pos.	Results Neg.	No. patients given toxin	No. and kind of reactions	Results of retests Pos.	Results of retests Neg.	No. Patients given antitoxin Prophy.	No. Patients given antitoxin Theu.	No. and kind of reactions and remarks
						..	..	5	..	Reactions all negligible.
A	..	..	..	10	None except in 3 children of same family, all of whom vomited for 1 hr. a few hours after each inoculation and another child who had slight rash after first and sl. temp. after next 3 inoculations.	..	..	3	..	Severe with high temperature. (One had had T. A.)
B	4	2	2	2	One had none—other had fever, and increasing malaise after first 2 and following the third developed an acute rheumatism for 24 hr.; grippy after fourth and some malaise after fifth.	..	..	..	..	
C	6	5	1 (another not tested)	6	None.	3	2	2 (10,000 units)	..	One developed scarlet fever 7 days later. Both had reactions—1 severe, 5 days after inoculation.
D	..	..	..	6	No reactions except in 2 cases. One vomited after first inoculation and had fever and malaise after others. Another showed malaise after first 2.	..	..	..	2	Both showed fall in fever and rash disappeared in 24 hr. Neck glands involved and slight suppuration in one; other case had severe serum reaction 5 days after inoculation. Relieved by adrenalin. Had T. A.
E	..	..	..	..		..	..	6	..	None except in 1 child who, 24 hr. after the injection, developed high temp. for 24 hr., skin rash and itching for 3 or 4 days.
F	..	..	..	30? - past 2 yr.	None reported.	..	5	3	2	No reactions reported. In both cases treated, toxic symptoms disappeared in 48 hr.
G	6	4	2	4	Fever, malaise, and in 1 case vomiting, followed second night after each inoculation in 2 brothers; in 2 other children there was no reaction.	..	..	..	..	
H	2	2	..	2	None.	..	..	..	..	

I	33	29	4	15	Practically all showed from sl. to mod. reactions quite pronounced at second inoc. increasing at third and fourth and fading off at fifth. Four had more severe reactions with fever, vomiting and headaches, 3 of them spending from 1 to 3 days in bed.	1	7	..	..	
J	..	..	..	..		..	..	8	..	Claims all had severe sickness with urticaria, fever, and in 5 cases, vomiting. Very sick.
K	5	3	2	2	None.	2 (after 3 retests)	..	7 (5000 units)	3	None. Prophylactic dose 5000 units used in all; 1 developed otitis media.
L	..	..	..	3	None in 2; other very ill for about 1 week.	..	..	..	..	
M	3	2	1	2	Both had malaise and sl. fever after first 2 inoculations and one vomited after the second and third.	..	..	..	..	
N	4	4	..	4	About 2 hr. after second injection all vomited. After third and fourth vomited more violently all night. Following fifth, vomited but once about 2 hr. after inoculation.	..	..	3	..	None in 2 cases. The other, a 16 yr. old high school girl severe anaphylactic shock 48 hr. On April 24, nearly 2 months after this experience which took place Feb. 22, she developed scarlet fever.
O	4	4	..	4	One had slight rash and 102° F. after second inoculation. No other reactions.	..	..	..	..	
P	9	9	..	10	Two had slight reactions.	3	6	3	2	One dose gave marked reaction. Others slight.
Q	..	..	..	1	None.	..	..	3	..	*Lilly's (3.5 c.c.) all showed reactions — 2 severe, both local and general; 1 had T. A.
18	76	64-84%	12-16%	71 30? 101	20—13 sl. 20%-13%	9-31%	20-69%	43	9	17—2—36.5%. Only 3 had serum previously.

*In all other treatments, Squibb or Lederle products were used.

A summary of these results is interesting. In all, 76 Dick tests were performed; 64, or 84%, of them being positive, and 12 or 16%, negative. Several of these doctors immunized the children without a preliminary test, one claiming to have performed at least 30 within the past 2 yr. without any deleterious results. These 30 are included along with the 71 others reported, making a total of 101. Analyzing these answers carefully, we find that 20, or exactly 20%, showed what the doctors termed rather severe reactions; fever, vomiting, and malaise were common in this group. Rashes were reported in but 2 cases and 1 showed aching joints simulating rheumatism for 24 hr. In 13 other children, slight reactions were reported, which, combined with the others, makes a total of 33% in which some reaction ranging from slight to severe was recorded. Only 29 of these children were retested, about 30% of them being positive and approximately 70% negative.

Scarlet fever antitoxin was employed by these 18 physicians 52 times; 43 for immediate prophylactic purposes and 9 for treatment of patients. In 19, or 36.5%, of the cases, reactions were noted; in 17 of them the report being severe reactions—ranging from merely a slight increase in tempera-

ture with some local reaction to high temperatures with urticaria, vomiting, etc. In only 1 case was a true anaphylactic shock reported, persisting for about 48 hr., and nearly 2 months later this girl contracted the disease. One physician reports that a child developed scarlet fever 7 days after receiving 10,000 units as a preventive. Remarkable recovery is reported in all cases where the serum was used for therapeutic purposes. The toxic symptoms seemed to disappear in about 48 hr.

It is interesting to note that so far as could be learned only 3 of the 19 persons who were reported as reacting unfavorably to the antitoxin had ever before had any serum. These were children who had been given toxin-antitoxin. In view of the discussion developed largely from reports of but one aspect of the problem it is worth while on this occasion to state that though reactions were noted in 3 persons who had formerly received some horse serum antitoxin, in the 14 others (and among them the most severe reactions) no previous serum had been had. This is in line with the position constantly maintained by Dr. William H. Park and his colleagues at the Willard Parker Hospital. Dr. Sophie Spicer, of that institution, in the June 2 issue of the Journal, reports on a series of 237 patients divided into 3 groups: (1) those who never had serum before; (2) those who had previously had a therapeutic dose and (3) those who had received toxin-antitoxin. In the first group, 13.4% reacted to the first dose of serum they had ever received in their lives. Approximately the same proportion, namely 14.3%, of those previously inoculated with toxin-antitoxin, developed serum reactions; while 17.8% of those who had formerly been treated by horse serum showed reactions. In other words, according to this, one may expect from 13% to 18% of reactions whether or not a person has ever before had serum. The slight difference is immaterial and indicates the desirability of inquiring carefully into the histories of those to be treated, particularly as regards hay fever, asthma, and any food idiosyncrasies. Dr. Spicer states that this low percentage of reactions is probably due to the fact that each patient is given a skin test before administering serum of any kind and that those reacting are given small, divided doses, gradually increased at 15 minute intervals until the full tolerance for a given patient is reached. Epinephrin is promptly administered on the slightest indication.

It is frankly admitted that in immunizing against scarlet fever we are dealing with a quite different set of problems from those existing in diphtheria. In light of our present knowledge, it would appear that health departments are fully justified in applying the Dick test and active immunization against scarlet fever for the purpose of aborting outbreaks in schools and institutions, and that beyond that these activities should be carried on by the private physician where the family desires it with the helpful coöperation of the health authorities. Used in this way, any untoward reactions which may develop in a given case that might otherwise alarm the family can easily be explained away by the physician in attendance.

So far as therapeutics is concerned, the health department is but incidentally interested. This is the undisputed province of the physician and development of the use of scarlet fever antitoxin for treatment purposes will probably go forward in spite of health departments.

Chairman Murray: The next speaker will be Dr. George F. Leonard, Assistant Director of Squibb's Biological Laboratories; Dr. Anderson is unable to be here.

Dr. Leonard: I have been asked to discuss the serum reactions, their frequency, severity and elimination. I realize I have the hardest end of the proposition, but I will make the most of it that I can.

Following introduction of diphtheria antitoxin in 1894, immune serum of various kinds soon became a common practice in the treatment of disease. Soon thereafter there were reported certain untoward symptoms following the use of horse serum; in certain cases there were symptoms of shock and collapse almost immediately following the injection. This condition is known as anaphylaxis and, fortunately, its occurrence is extremely rare. A condition that occurs more frequently following administration of horse serum is known as serum disease or serum sickness; this consists of a series of symptoms coming on usually 5 to 7 days after the injection and various clinical manifestations are encountered, such as urticaria, fever, edema, lymphadenoma and arthritis. These symptoms are due to horse serum and may be produced by the injection of even sterile normal horse serum. Concentrated serums are less likely to produce reactions than are unconcentrated serums, partly because of the smaller volume required.

Scarlet fever antitoxin was first prepared from horses in 1924. About 1 yr. later, it became available for general use. As there was an immediate great demand for this new antitoxin, much of the antitoxin used was not aged as long as diphtheria and tetanus antitoxin. This, in addition to the larger dosage that was necessary, was probably a factor in the increased serum reactions.

As time elapsed, scarlet fever antitoxin became properly aged, its potency increased, and it has been more highly purified and concentrated, so that for the same volume injected it should produce no more severe reactions than are produced by diphtheria antitoxin.

I just talked a day or two ago with a doctor from the West who said he was getting satisfactory results with the use of antitoxin. He said one of the hard things to live down was the reactions they got in the early days with the first antitoxin sent out; that the antitoxin he was using now was satisfactory, and while he was getting considerable reaction, as the doctors have mentioned here, for the volume injected, he was not getting any more than he would expect.

In comparing the reactions of diphtheria and scarlet fever antitoxins, it should be borne in mind that the therapeutic dose of scarlet fever antitoxin is approximately the same size as 20,000 units of diphtheria antitoxin. The average dose of diphtheria antitoxin is 10,000 units, therefore, the volume of scarlet fever antitoxin in a therapeutic dose is approximately twice that of diphtheria antitoxin. Most physicians have given diphtheria antitoxin subcutaneously, where the absorption is slow and the concentration in the blood does not reach its maximum for 24 hr. or more. Most scarlet fever toxin has been given intramuscularly where absorption is much quicker. Whether this is a factor in producing serum reactions is a question that has been raised, but which has not been answered.

Very few clinicians record systematically the various serum reactions encountered, so that it is difficult to get accurate statistics on the number

and severity of serum reactions on various lots of antitoxin. From reports on the use of scarlet fever antitoxin in various parts of the country that are available, it would seem, comparing the size of the dosage, there are scarcely any more reactions from the use of scarlet fever antitoxin than from other antitoxins.

Gordon, Bernbaum and Sheffield (J. A. M. A. 1928, May 19, p. 1604) have recently reported the results of the use of antitoxin in the treatment of more than 1000 cases of scarlet fever. This is a very comprehensive report which gives the number and severity of serum reactions following antitoxin. They have taken careful histories of previous sensitization with horse serum before administering antitoxin. The reactions from the use of scarlet fever antitoxin were 43%, and for diphtheria antitoxin 30%. However, twice as many of the scarlet fever patients had been sensitized to horse serum as of the diphtheria patients. Taking the nonsensitized patients of the 2 groups, the reactions were exactly the same for those which received scarlet fever antitoxin and those which received diphtheria antitoxin, namely 20% for each. They account for the larger number of scarlet fever patients being sensitive to horse serum by the fact that there had been an active campaign in Detroit against diphtheria with toxin-antitoxin. About 70% of the sensitized patients developed serum reactions, slightly more with scarlet fever antitoxin than with diphtheria antitoxin.

It is a questionable point whether toxin-antitoxin is a factor in sensitizing patients. Some claim it does sensitize a certain percentage of cases, while others think it is more theoretic than real. The amount of toxin in toxin-antitoxin is very, very minute. We believe there is little danger in following patients who have had toxin-antitoxin with a serum. Whether it produces more serum reactions is still a question, and Gordon, Bernbaum and Sheffield believe it is a factor.

Now taking the factor of volume into consideration, with the prophylactic scarlet fever antitoxin, it is recognized we have to give a much larger dose than with diphtheria. In diphtheria we only give 1000 units, about 1 c.c., for a prophylactic dose, while the prophylactic dose of scarlet fever antitoxin is comparable with 10,000 units of diphtheria antitoxin, or a volume at least 5 times as great.

Severity of Reactions

Gordon divided the serum reactions into 3 groups, *mild*, *moderately severe*, and *severe*. *Mild* reactions are those which have urticaria only. *Moderate* reactions include urticaria enlarged lymph-glands, joint pains, and a moderate rise in temperature. *Severe* reactions were those which had severe urticaria with edema, arthralgia, high temperature, enlarged lymph-glands and possibly gastro-intestinal symptoms.

When equal numbers of serum reactions were considered, there were no more severe reactions following scarlet fever than diphtheria antitoxin, namely about 6% for each. There were more moderately severe reactions and fewer mild reactions after scarlet fever treatment than after diphtheria treatment.

The work of Gordon and his associates seems to put an end to the somewhat prevalent idea that scarlet fever antitoxin is, per se, more apt to give rise to reactions than is diphtheria antitoxin. They conclude by saying that, in general, reactions are somewhat more severe following scarlet fever antitoxin, but this is by no means as marked as a year ago, when serums were not properly aged. The severity of serum reactions should decrease as aged products become more generally available.

Elimination

The complete elimination of serum reactions following the use of antitoxin is an ideal which all physicians would most highly welcome. So long as antitoxins are made from horse serums and persons are sensitive to these serums, there is little hope of this ideal being realized. However, much has been accomplished, and much more is being done to reduce the number and severity of serum reactions to a minimum.

The process of concentrating antitoxins is not a simple separation of the proteins of the blood. Year by year new discoveries and improvements are being made. This improved concentration helps in 2 ways, it reduces the volume, and also eliminates much inert protein which undoubtedly has associated with it factors that produce serum reactions. Aging has been mentioned as a factor. It has been a factor in helping to get a complete separation of proteins. With the improved methods, we have been able to get a practically complete separation of the protein fractions, and we believe we have eliminated much that produced reactions.

As time goes on, year after year, more of the inert part of the blood that is causing serum reactions is being taken from the antitoxins. That factor has by no means reached its highest point, and eventually less serum reactions will be had from that source.

Aspirin in large doses beginning about the fourth or fifth day after injection of the antitoxin and continuing for about 5 days has controlled the serum reactions in a number of cases. Neoeincophen has been used in certain cases to control the arthritis. Ephedrin has been successfully used to control serum reactions, but its action is not so prompt as adrenalin. Adrenalin solution will usually give prompt relief in the severe reactions, and should always be given where anaphylactic symptoms are encountered. Its action is seen very quickly, is only temporary, but may be repeated without harm.

Levy uses adrenalin solution routinely just before injection of any serum.

We propose to continue to watch developments but it would appear inadvisable for health departments to make public offer of these services at least until such time as they can be assured by the manufacturers and by such studies as can be relied upon that the technical difficulties of production and preservation have been corrected, that the number and strength of dilutions to be used have been accurately determined and until some definite knowledge of the exact length of time the immunity will persist is forthcoming. In the meantime they might well encourage in all suitable ways the use of scarlet fever toxin by the private physician in the hope that this public health procedure may be developed as an integral part of private practice.

Dr. Julius Levy (Newark): I would like to ask about the reaction to active immunization. My experience in the beginning was that a number of children would get a temperature of 103° which would recur after each injection. That occurred so often that a number of mothers would not go on with it. I want to know if general experience is different. Mothers are in position to say they would rather take a chance with scarlet fever that

is rare, to indisposition that will run along for almost 5 weeks. If that is cleared up, I think then we can make a more active campaign for immunization.

Dr. Edwin H. Place: As to reactions to active immunization we find very little trouble. Very rarely we have a reaction that is alarming. It is not, of course, necessary to follow any set doses. In many cases there were given only a few thousand units; now we have cases that get as high as 100,000. After a few years we are hoping we can check back on quite a number to see whether the large dose gives a longer immunity. You get temporary immunity with small doses of toxins just as with large. There is reason to suspect the large doses will give a sufficiently long immunity to be worth while. If, however, you get reactions starting with a small dose, do not give 500 units, give 100 or 200. Try it out and go up with that patient according to his needs. An interval of a week is apparently satisfactory.

As regards toxin immunization *after exposure*, we feel it is absolutely useless. We don't get immunity quick enough. Scarlet fever incubation varies from about a day at the shortest under experimental conditions up to perhaps 7 days as the ordinary extreme. You can't get immunity with toxin in that time; at least we can't. Therefore, as I said, antitoxin is the only thing you can use. Of course, the great trouble is that a great majority of people escape the exposure. The percentage of infection is very small. You hate to give antitoxin for immunization for cases exposed with so small a chance of contracting the disease. The duration of that immunity is short, sometimes not over 1 week. It is useless for continued exposure. We have used the "antigen" in quite a number of cases, but I am not ready to report on that. The dosage is much smaller as we have used it, about 8000 units modified by castor oil soap. Many of our cases are getting 50,000 to 100,000 in straight toxin. We haven't found any difference in the percentage of reactions to antigen. It depends somewhat on how you go ahead with your toxin. The dose of toxin we now use, except those we want to keep down, is the usual increase of starting with 500 as the first dose and increasing the rate of 3 to 4 times in subsequent doses up to between 50,000 and 100,000, modifying that, of course, according to reactions.

As to the second dose of serum, we have had hundreds and hundreds of cases where we have given the second dose and I can't say the danger of reaction to the second ordinarily is very much higher than the first. As a matter of fact, it plays very little importance in our procedures. We test all our cases anyhow. I have already acknowledged we don't always act on test. That is a confession of ignorance.

As for bovine serum, some years ago Parke Davis and Company made me a little supply. We were rather surprised to find the number of people sensitized. It was perfectly enormous. We quit using it and haven't used it since.

As to the scarlet fever serum and diphtheria serum, there is in our case certainly very marked difference. We give antidiphtheria toxin in large doses. Twenty-five years ago the diphtheria reactions in the City Hospital in Boston were tremendous because we were using straight diphtheria antitoxin just drawn off the horse's blood. We used to have 80% of serum reactions in those days.

With the first scarlet fever serum, using the same sort of serum, unconcentrated horse serum, we also had a very high percentage. Now, using straight pseudo globin serum we are getting about 50% reaction, half of them severe. Diphtheria is very much lower; less than 10%.

In the group of cases I spoke of where we had to give the second dose of scarlet fever antitoxin, we had the most extensive outbreak of arthritis reactions the world has ever known. I don't think I can find anywhere such a series of reactions. As these were given in the arm, the arms swelled up larger than the thighs. That was on the second dose. Only 2% gave reaction on the first dose; 30% had reaction on the second.

Dr. Smith spoke of the failure of antitoxin. I think it is due to the fact that they have depended on it for too long a period. We expect it to protect for only one exposure. For an exposed case, there is only one thing you can say, and that is, give him antitoxin. If you give it to him he will not get the disease, but he sometimes is exposed subsequently.

I had the fortune of immunizing a prominent physician's children. They are grown practically, one in Harvard and the other in Radcliffe. They were both exposed closely by a friend. It was just at examination time a few years ago. He asked me what we could do. I told him we could run the risk that they would get it, a chance of 1%, or take serum with probably 10% chance they would get serum reaction. I didn't stress that enough. I gave them serum. They both had tremendous serum reactions. They missed the examinations and then, to cap the climax, the daughter developed scarlet fever from subsequent exposure 3 weeks later. The physician still speaks to me, but very distantly.

EXPERIENCE WITH SPECIAL BIOLOGICALS IN THE TREATMENT OF PNEUMONIA

Russell L. Cecil, M.D.,
Assistant Professor Clinical Medicine, Cornell University
New York City

(Reported remarks at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

All of our work at Bellevue has been with adults but we have been hammering away at this specific treatment of pneumonia for several years. While listening to Dr. Place, I was reminded of some of our own experiences at Bellevue; we men working with serum have our ups and downs.

For convenience we can divide lobar pneumonia into 3 age groups: infants; young children between 2 and 15; and, after 15, the adult type. In infants, pneumonia is quite

serious. In young children it has a low mortality, so low in fact that I seldom advocate the use of any serum derivatives, because such a high percentage get well. In adults the death rate in city hospitals runs from 30 to 35%, which of course is a high figure. In infants I believe the figure is almost as high in hospitals. Of course in private practice, for children and adults the figure is very low. Pneumonia is one of our most serious infections, certainly in this climate, and we are very much in need of some sort of help from serum if we can get it.

Perhaps I ought to say a word about the various types. For instance, in adults the fixed pneumococcus types, 1, 2 and 3, make up about 65 to 75% of all of our lobar pneumonias. In infants, according to Dr. Wohlstein, who has studied types at the Babies' Hospital, the various fixed types do occur, but type 4 is the commonest type of lobar pneumonia in infants. It is a very interesting thing that type 1 pneumonia is the pneumonia of young people above 15, say from 15 to 30. We found by analyzing a large group of cases in Bellevue that half of them were type 1. Type 1 pneumonia seems to have a particular predilection for the young, whereas type 3 pneumonia is rarely seen in young people but is quite common in elderly people, particularly women. Just why we get that distribution, I do not know.

Now, during the past 7 yr. we have worked with several different products at Bellevue. We started out originally with Cole's type 1 serum and then began, in 1922, working with Huntoon's water extract of immune bodies. We worked with that for a couple of years. We want to get something into the patient that will develop his immunity more quickly than he will with his own resources. We found from our work on monkeys that if we can keep the pneumococcus out of the blood the patient will usually get well. So, the problem we set ourselves was to sterilize the blood and prevent septicemia. We believe that if we can get a sufficiently potent extract from the immunized horse we can do this. We have very good experimental evidence for it, and clinical too, as I will show you directly.

The original work at the Rockefeller Institute was done on pneumococcus type 1. Dr. Cole felt dubious about serum treatment for the other types. Since then, we have learned how to get highly potent extract from horses; also antibody extracts. With these products we can sterilize the blood frequently in type 1 pneumonia and quite frequently in type 2. The work on types 3 and 4 is not developed as yet, but during the coming winter—this of course will have an interest to pediatricians—Dr. Park proposes to immunize horses against type 4. He has found that more than half of the type 4 strains fall into 3 groups. He is going to immunize horses and make a serum for the treatment of type 4. With a product of this kind, if it works out as well as we hope, we will perhaps have something practical for use in infants.

The product we worked with for the last 3, particularly the last 2 yr., is not Dr. Huntoon's agent. We gave up Huntoon's antibody because of the severe reactions. It gave promising results, but was not particularly potent. It had a faculty of producing chills and high temperature and we gave it up for what we consider a better product. This new product was devised by Dr. Lloyd Felton, of Harvard University. It is also an extract of immune bodies taken from immune horse serum. It contains immune bodies against pneumococcus types 1, 2 and 3, not against 4 as yet.

This product is made by simply adding sterile water to immune serum, then redissolving in concentrated form, so that we have finally a product which is 10 to 20 times stronger than the original serum. Those of you familiar with the old serums know the usual dose is 100 c.c. of serum in adults. Dr. Cole recommended diluting with equal parts of saline. The patient, therefore, had to be injected intravenously with 200 c.c. of diluted serum 3 times a day. It was quite a job. You can readily understand why the Rockefeller serum never became very popular. Its use is largely restricted to hospitals, and even in hospitals it hasn't been holding its popularity.

We put the concentrated serum directly into the vein in doses of 5 to 25 c.c., so we have a product which is purified, concentrated and practical, that is, you can give it without too much fuss and bother. Unfortunately, we haven't gotten away entirely from reactions, because we precipitate out with the immune bodies a certain amount of globulin which of course will cause a reaction in patients highly sensitive to horse serum.

We have a method of standardizing this product. A unit is the amount of serum which will protect a mouse against a million fatal doses of pneumococcus culture. Felton's serum is highly potent against pneumococcus type 1, very potent against type 2, and moderately potent against type 3. As a matter of fact, we haven't been able to get any results with it in the treatment of type 3 and we seem a long way from getting any. Fortunately it is the rare type, constituting only about 12% of pneumonias in adults.

The experiments on animals are very interesting. You can produce perfectly classic lobar pneumonia by injecting pneumococcus type 1 intratracheally. Monkeys can be infected with fatal type 1 pneumonia and within 2 days can be saved by prompt injection of Felton's serum; 100% can be saved in type 1 and not quite such a large percent in type 2.

The real test of its value comes in man. We have been working with this serum in the wards of Bellevue for the last 2 yr. using the alternate case method. We have treated now over 400 cases with 400 controls. As each case of lobar pneumonia is diagnosed the patient is given a number. If he is an even number he gets serum at once. If he is an odd number, he gets the same symptomatic treatment, but no specific treatment. As this goes on we gradually accumulate a large series of cases giving us a simultaneous control which is important because the death rate in pneumonia seems to vary from year to year. It wouldn't be fair to treat 300 or 400 cases now and compare them with cases not treated 2 or 3 yr. ago because the death rate varies considerably in different seasons.

The method of giving the serum is very much like that in other serum injections. We have been using the ophthalmic test instead of the skin test in testing for sensitiveness. Of course, we make careful inquiries as to the history of asthma, hay fever and hives. In addition to that we do an ophthalmic test and make a reading 15 minutes later. If the patient is sensitive, we proceed with great caution, giving very small doses of serum to desensitize him. If the history is all right, we give the patient 5 c.c. intravenously. After the first 5 c.c. has been given, we feel perfectly safe to go right ahead and give larger doses intravenously at frequent intervals. We like to get in 75 or 100 c.c. of our concentrated serum during the first 24 hours. If a type 1 case has come in early we expect the temperature to come down and the patient to be much better the next day. Even if he is better, we continue the treatment. If he is no better we keep up the large doses. If he is better, we diminish the dose a little on the second day. On the third day, if the temperature is down to normal, we give 1 or 2 small doses to prevent a relapse. We feel in a large number of these cases, particularly the early ones which produce a real abortive pneumonia, that unless we keep them loaded and full of immune bodies, they will relapse and start up again.

Now as to the reactions. They are of 2 kinds: (1) Due to foreign protein, which consists of a chill and rise in temperature, the same sort we used to get with Huntoon's antibody. I am glad to say that with Felton's serum we have been able to get away from that almost completely. This is because Dr. Felton has worked very hard and has kept purifying and repurifying these extracts. Occasionally we get a lot which gives chills and we send it back. We know there is some impurity there, some substance that doesn't belong in the serum and we send it back to Dr. Felton to repurify it. The foreign protein reaction has practically been eliminated from recent lots. (2) The other reactions of course are more serious and have to be considered in any kind of serum treatment—the anaphylactic reactions. They are of 2 kinds,

the immediate reaction, and the late reaction or serum sickness. We have had several good scares with anaphylactic reactions, but I am glad to say in the 400 odd cases treated, we haven't lost any patients. If one proceeds slowly enough and stops the serum immediately when symptoms develop, serious accidents can be avoided, especially with the help of adrenalin. These immediate reactions usually come on a few minutes after the injection of serum. Serum sickness was formerly quite a problem when so much serum was administered. A high percentage got it rather badly. With this purified product, giving doses of only 15 or 20 c.c., serum sickness isn't serious at all. About 15% get hives or develop some form of sickness. They complain a little over the rash. It isn't anything like the serum sickness that we used to see.

The clinical results with Felton's serum are often quite striking. I will be accused, when I show these temperature charts, of picking out good ones. I might say all these are from last year's work. We have had more good clinical reactions this year than ever before because Dr. Felton has been able to increase the potency of the serum.

Of course pneumonia in adults is a much more serious disease to treat than these infections that come in children. In the first place you are usually not dealing with an otherwise healthy subject in adults. Pneumonia in adults is so apt to be in patients already ill. There may be alcoholism, old age, or something that lowers resistance, so we don't have as good a subject as Dr. Place has with scarlet fever serum or Dr. Park with diphtheria antitoxin. If they were as good subjects as the monkeys I experiment on, I wouldn't have any complaint. Monkeys can be down in a cage almost moribund and after a few injections of Felton's serum are right up again and well the next day.

The problem in pneumonia is one of massive infection. In diphtheria and scarlet fever we have comparatively small localized infections with general manifestations. In pneumonia we have a very massive infection, a great deal of pus production and myriads of pneumococci to be eliminated before the disease can be controlled.

We feel that Felton's serum is by far the most efficient and practical product that we have worked with. We believe it is destined to come into considerable use in the specific treatment of pneumonia. We believe it is a practical thing. Next winter, Dr. Park plans to supply New York City with it when it is needed, in addition to the experimental work which will go on. I saw Dr. White in Boston the day before yesterday. He said they were planning to work with it next winter. As I say, it has the advantages of being potent, of being stable, of being practical to administer. The reactions are rare and if proper precautions are taken, there is no reason why it shouldn't be given with safety. It seems to be a particularly efficacious product in type 1 pneumonia. We have not only the evidence from animals, but clinical evidence. We treat patients with type 1 pneumonia and expect the temperature to come down. We are very much surprised if it doesn't, because we are working with a potent product and we have the evidence of statistics not only in our work but the work being done at New York Hospital and Harlem Hospital. They also find, particularly in type 1 cases, that this concentrated serum gives valuable results. I think as time goes on and we purify and concentrate still more we are going to have a really worth while product for the specific treatment of pneumonia.

DISCUSSION

Chairman Murray: I will ask Dr. Albert E. Roussel, Professor of Medicine, Graduate School of the University of Pennsylvania to open the discussion.

Dr. Roussel: I was rather sorry that Dr. Cecil preceded me, because as usual he covered his subject in such a manner as to leave comparatively little to be added.

There is no doubt at all that the various statistics of type 1 pneumonia show quite a material reduction as compared to the ordinary symptomatic treatment. There are, however, the disadvantages which have been detailed. In the first place the serum reaction was an important factor and the serum sickness a subsequent one of considerable moment. Consequently, we hailed with some satisfaction the advent of Huntoon's solution which at least was not objectionable from that particular point of view. Two years ago, before the American Therapeutic Society, I reported

a rather small series of cases treated with Huntoon's serum.

I have since continued the use of Huntoon's serum because I know nothing better for the reason that my experience with Felton's has been limited to a comparatively few private patients. However, the point of importance here is the classification of cases. A quite recent article will show the bacteriemia as detailed by some observers and found in 100% of the cases, doubtless from repeated examinations and from the taking of rather larger quantities of blood for examination than is usual. Certainly I am going to ask Dr. Cecil to tell us in what proportion he has been finding bacteriemia. Our work is done rather thoroughly, as you know, for the reason that our bacteriologist is a well known one. But our custom has been to take only 3 c.c. of blood and if the first count was negative, it was accepted as negative unless there was an accentuation of symptoms and subsequently secondary examinations proved positive in a number of instances.

Recent statistics show that in those cases where bacteriemia comes in late it has a more serious omen, in view of the fact that treatment has been going on, than perhaps in cases where it has been seen early. Certain it is that in a number of our cases the use of Huntoon's serum has resulted in clearing up the bacteriemia. I think Dr. Cecil himself reports some cases. That struck us with particular interest because in those instances, as a rule, the charts as exhibited here showed a sudden fall of temperature on the second or third day attended with comparative comfort for the rest of the period of 9 or 10 days, but a point of particular interest was that the physical signs remained the same. I take it that actual resolution did not take place in either group until about the proper period of time, which was 9 or 10 days. or sometimes an extended period of time. I have been impressed by the fact that although my patients, some of the well marked favorable cases, felt like getting out of bed, and were possibly able to do so, there still were signs of the solidification process. Consequently, it only goes to prove that probably almost all fatal cases of pneumonia must be cases of septicemia, and the cases that get well are those where the baccilli have apparently been removed from the blood or where they have been in smaller quantities at the time, just as it is a rather interesting and true statement that involvement of 2 lobes is worse than 1 lobe in the average number of cases as regards mortality. So not only your bacteriemia, but your degree of bacteriemia is an important element as regards prognosis.

Now, I still think—until we are able to study a fairly large number of cases and especially on mortality findings regarding the 2 antibody solutions—Huntoon's serum possesses some elements of greater satisfaction in its application than possibly Felton's. Felton's we take it, contains more of a serum element. You have to determine whether you are going to give your large dosage or your average dosage at first. Now, such is not necessary, or never has been in my series of cases, in the exhibition of Huntoon's solution. I would call to Dr. Cecil's attention that the new concentrated serum does not now show the reactions of the old. Where I have had temperatures of 107° and everybody was frightened to death, only in one instance, I think, did it possibly precipitate demise of the individual.

Strange to say, I used to have an idea, especially in type 4, because we use this thing rather indiscriminately and I think it has affected type 4, that the more decided the reactions were, the better the results achieved. I think control tests are absolutely necessary. Statistics at Howard Hospital some years ago showed 40% of deaths, all told, from different types of pneumonia, whereas the Graduate Hospital, University of Pennsylvania, showed only 30%. I don't know why. Both were in the lower classes of people. I think the mortality in type 4, in both hospitals, is higher than the average text-books represent. It is possibly due to the fact that we have had a large influx of colored people from the southern fields who probably have never before been exposed to pneumonia. Consequently, when these people came to Philadelphia they were first impressed by the more prevalent type 4 and there was an increase of mortality rate in consequence.

I am firmly satisfied that both of these antibody solutions are of decided merit. Three years ago, for the first time in my professional career, I was taken ill with pneumonia. I insisted on the use of Huntoon's with, as you see, fairly satisfactory results, and it was type 2. Now, there is no doubt at all—I am speaking more particularly of the Huntoon solution—that our greatest results are obtained in type 1, but I think we also have better results, at least a greater difference in results, in type 2 than Dr. Cecil showed on his chart. There was a reduction in type 2 pneumonia. Type 3 was practically not improved or showed no variation. Type 4 did show a reduction of about 7%, bringing it down to about 15, because our mortality from type 4 is about 22% and has been for the past several years.

One point of particular interest that I want to call attention to is that this does not and should not prevent careful symptomatic treatment of the patient. The mere fact that we are giving our various solutions should not prevent the due care and attention that should be paid to the other well tried and proved helps as regards this method.

I am going to go into a series of Felton's solution myself if I may, and talk more learnedly on that part of the subject another time.

Chairman Murray: The paper is before you for discussion or any questions you would like to ask Dr. Cecil.

Question: I'd like to ask if Dr. Felton's serum is on the market at present.

Question: I'd like to ask whether the ophthalmic test for serum sensitivity is as delicate as the subcutaneous test.

Question: I'd like to ask if the respiration rate goes down with the temperature.

Dr. Julius Levy (Newark): I'd like to ask if the doctor has tried it out by the intramuscular method; whether we can expect results in that way.

Chairman Murray: Are there any other questions?

Dr. Roussel: It might be of interest to note that in a recent study of complications in pneumonia, particularly with reference to endocarditis and meningitis, that in a series of approximately 50 cases in Philadelphia General Hospital during the past 7 or 8 years with one or the other of these complications, spinal fluids that were studied, in a series of 44 that were typed, over half of them showed group 4 pneumococci. I, therefore,

am particularly gratified that the Rockefeller Institute and others are concentrating a great deal more now on the more important types of group 4, and we may shortly hope to have a biologic product for group 4.

I believe if more thorough studies were done in these quite severe cases, more careful blood cultures made, including spinal fluid studies, those cases with cerebral symptoms without very evident signs of meningitis, we might get a much higher percentage of positive cultures. We might also, on more careful effort being exerted to obtain autopsies in fatal cases, find in some of these cases treated with these biologic products—at least instances of endocarditis with positive warts on valves and even with positive evidence in the spine or brain that weren't diagnosed during life. So, even some of the fatal cases in which these biologicals were used, I wouldn't entirely attribute as total failures to serum. At least a small percentage might have been undiagnosed complications.

I would like to ask Dr. Cecil if he divided any of these into groups of children and what his impressions of children in this group were, for as a rule their mortality is markedly less.

Dr. Cecil: I think Dr. Roussel is quite right in saying Huntoon's serum has one big advantage over Felton's. You can give it without fear of any allergic symptoms. The ideal product would be a combination of Huntoon's and Felton's, that would contain only immune substance and not give chills. I am inclined to agree with the doctor about the value of chills. Dr. Frank Meara used to say, "Give them a chill". He was a great believer in the specific plus the nonspecific effect because he thought you could get as much benefit from the chill as from the specific reaction. There is something in it, of course. On the other hand, the trouble with Huntoon's original formula was that it often gave such a severe chill that it endangered the patient's life. Personally, I got so I didn't mind the chills but other people did. Having seen about 400 patients go through the chill we got so we didn't mind seeing the patient get the chill.

Felton's serum has great advantage over Huntoon's. I have, however, seen Huntoon's antibody sterilize the blood. That brings up the question of degrees of sepsis. Blood cultures can be positive in quite a high percentage of cases if much blood is taken. We tried about 40 c.c. of blood and our percentage went up to about 50%. Ordinarily, taking the usual amount of blood, 5 or 6 c.c., I think the blood cultures are positive in about 30%. So, perhaps we are justified in saying a distinction should be drawn between a fleeting and a very light bacteriemia and a real sepsis. It is a surprising thing that all these patients haven't pneumococci in the blood when you consider there are myriads of them in the lung and how loose the tissue is. It is marvelous the way nature can wall them off. With all the leukocytes going in and out of the blood stream, it is incomprehensible how nature does it.

The ophthalmic test, I think, is decidedly more sensitive than the skin test. That is the reason for changing to the ophthalmic test. Felton's serum, by the way, is going to be put out by the Lederle Company. They are immunizing horses and it will probably be available by the time the season comes around.

The respiration rate comes down of course with the temperature and pulse rate. It is quite true the physical signs persist for some time after normal temperature, longer than in the usual case.

I think we would be quite justified in giving Felton's serum intramuscularly to children, particularly small children.

The trouble, in infants, is to determine the type. Dr. Wollstein used to stick a cotton swab down the throat, gag the child, cause it to cough, and thus get a little expectoration. It is too bad we haven't some quick method of typing pneumonia in infants, but we haven't anything of that kind at present.

SPLENECTOMY FOR HEMORRHAGIC PURPURA OF CHILDHOOD

Walter Blair Stewart, M.D.,
Atlantic City, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928)

Hemorrhagic purpura is a disease primarily of childhood. More cases occur in the first decade of life than in any other. Of 96 cases of splenectomy for hemorrhagic purpura which have been recorded in the literature, with the age stated definitely, 29 occurred in the first, 25 in the second, 22 in the third, and only 20 in the last 4 decades of life. Hence, this pediatric view of splenectomy as a therapeutic agent for hemorrhagic purpura is based upon a study of the 35 operations which have been done upon children up through the age of 12 years, that is, 31% of the total number.

The entire subject was surveyed adequately in January of this year by Spence and by Anschutz, who reported 101 and 100 cases, respectively, of splenectomy in hemorrhagic purpura. The last report in the American literature was that by Whipple, who had collected 81 cases in 1926. However, no special study of splenectomy for this condition has been made in children, in a search for differences from the results obtained in adults.

Theoretic aspects of the disease have been discussed in sufficient detail by others, as to etiology and the rôle played by the reticuloendothelial system. The chief symptom is bleeding. In the skin this results in petechia and purpuric spots; in mucous membranes it results in hemorrhages from the nose, gums,

stomach, intestines, vagina, or the bladder. It occurs usually in the chronic form, in recurrent attacks which may last for several days or weeks; but occasionally in the acute form, with one brief period of exsanguination. The bleeding tendency is caused mainly by lack of blood platelets, which is a result of overactive phagocytosis by the reticulo-endothelial system. Splenectomy gives the best results when this phagocytosis of the platelets is confined to the spleen. When it occurs not only in the spleen but also in other reticulo-endothelial dépots, removal of the spleen alone seldom effects a complete cure. Of course, this is a theoretic and not a clinical distinction.

The 2 chief features in laboratory diagnosis of hemorrhagic purpura are marked reduction in the number of platelets and prolongation of the bleeding time. Other diagnostic methods, such as nonretractility of the blood clot and positive tourniquet test, although of confirmatory value, if present, are nonspecific, occuring also in other conditions. Apparently poor results after splenectomy undoubtedly follow, in some cases, an incorrect diagnosis of the underlying condition. Aplastic anemia is the disease most frequently confused, because of the bleeding tendency and the low platelet count. However, the leukopenia of aplastic anemia should be a distinguishing feature. The periods of remission in hemorrhagic purpura often are associated with a normal platelet count and a normal bleeding time. This tendency to remission in the chronic form, with freedom from symptoms often for several months or more, is one of the features of the disease.

In the prevention of attacks, elimination of foci of infection is most important, since bacterial toxins, such as might arise from a latent sinusitis, may stimulate the reticulo-endothelial system to an increased destruction of platelets. Treatment of the disease by the usual methods of transfusion, radiation, and injection of nonspecific proteins often results in temporary improvement, but seldom in permanent cure. Transfusion acts as a momentary stimulus to the megakaryocytes of the bone marrow to increased production of platelets, an effect which persists, however, for only 3 or 4 days. Splenectomy, on the other hand, offers a prompt and permanent cure in most instances. Repeated transfusions must precede splenectomy in those cases which have developed an anemia of sufficient severity.

Two instances of splenectomy in children with hemorrhagic purpura, hitherto unreported, are available through the courtesy of Dr. E. A. Park, of the Harriet Lane Home at the Johns Hopkins Hospital.

Case Histories

Case 1. A white female child, aged 3½ years. General health had been excellent for the first 2 yr. of life, except for the presence of a congenital cardiac defect. Then there was observed an increasing tendency to bruising on slightest trauma. At the age of 2½ yr. there appeared crops of petechia on the neck and limbs, recurrent epistaxis, and bleeding gums. Calcium lactate therapy caused marked improvement until May 1, 1927, when she vomited about 1 qt. blood. The resulting anemia was relieved by a transfusion of citrated blood. During July and August there were several mild attacks, and considerable melena. In November, a tooth socket bled freely. She was admitted to the ward first on Nov. 30, 1927.

Physical findings of importance at that time were: Weight 33 lb.; purpuric spots on right elbow and both legs; slight pallor; moderately enlarged and diseased tonsils; nonpalpable spleen; and negative tourniquet test. Blood findings were noted as follows: The erythrocytes numbered 3,552,000; leukocytes 13,350; hemoglobin 61%. In the differential white count the polymorphonuclear neutrophiles were 46%, large lymphocytes 11%, small lymphocytes 32%, and monocytes 11%. The platelets numbered 40,000. The bleeding time was 7¼ minutes, and the clotting time 3 minutes. There was no retraction of the blood clot.

Ultra-violet radiation of the entire body was started at once and pushed to the limit.

December 8, 1927, examination of the blood showed platelets 50,000; erythrocytes 3,070,000; and hemoglobin 52%. December 12, the platelets numbered 54,000. December 31, the tonsils and adenoids were removed, and a transfusion of 200 c.c. of citrated blood was given. January 3, 1928, examination of the blood showed: Platelets 49,000; erythrocytes 4,530,000; hemoglobin 60%; and leukocytes 8200. January 8, hemoglobin was 68% and she was discharged from the hospital. During hospitalization the temperature had ranged between 98° and 101°.

At home the ultra-violet radiations were continued. January 24, there was a severe epistaxis and vomiting of about 1 pt. blood. On the following day she reëntered hospital. The erythrocytes numbered 3,530,000; leukocytes 9000, of which 49% were polymorphonuclear neutrophiles; and the hemoglobin was 45%. The platelets numbered 50,000. Bleeding time was 6 minutes and coagulation time 1 minute. February 5, the platelets numbered 22,000 and the bleeding time 15 minutes. February 7, a transfusion of 225 c.c. of citrated blood was given. February 8, the spleen was removed by Dr. Dean Lewis. After operation the platelets numbered 90,000 and the hemoglobin was 68%. February 9, a bronchopneumonia had developed, which, however, proved mild. The erythrocytes numbered 4,500,000 and platelets 130,000. Feb. 11, the platelets numbered 215,000; Feb. 13, 370,000; Feb. 20, 650,000; and Feb. 26, just 18 days after operation, 740,000. On this eighteenth day she was discharged from the hospital, free from all symptoms; erythrocytes numbered 4,200,000; hemoglobin was 65%; and the bleeding time 1½ minutes. There has been no recurrence of symptoms in the 3½ months since operation.

Case 2. A white female child, was 6½ yr. old upon her first admission to the hospital, September 4, 1926. She had always bruised easily, and rarely was free from blue spots. There had been occasional attacks of abdominal pain, vomiting, and dark colored stools with mucus, especially during the first 3 years of life. Four months before admission, following vaccination, another attack was accompanied by hematemesis and melena, and lasted for 1 week. Except for a china-like pallor she appeared well until 1 month before admission, when repeated hematemesis followed an attack of pertussis. A small cut on the elbow bled for 1½ days, and there was profuse hemorrhage after extraction of a tooth. There was also bleeding from the gums and many purpuric spots in the skin. Five days before admission she vomited almost a pint of blood.

Physical findings of importance at that time were: Weight 39 lb.; many bluish spots, the largest about the size of a dime, over the elbow, shins, and buttocks; a palpable spleen; and moderately large and smooth tonsils. Blood findings as follows: The erythrocytes numbered 2,120,000; leukocytes 10,200, of which the polymorphonuclear neutrophiles were 48%, lymphocytes 49%, and the monocytes 3%; hemoglobin was 35%; platelets numbered 300,000. The bleeding time was 8 and coagulation time 5 minutes. The blood clot did not retract in more than 1 hr. The temperature ranged between 98° and 101°. After a transfusion of 200 c.c. of citrated blood, the hemoglobin rose to 45%. Upon discharge from the hospital, Oct. 6, 1926, hemoglobin was 53%, and Oct. 25, had reached 60%.

The second admission, Nov. 1, 1926, was occasioned by numerous tarry stools, with a fall in hemoglobin to 33%. After transfusion of 280 c.c. of citrated blood she was discharged. On a liver diet at home, the hemoglobin had risen to 70% by Dec. 29. Recurrence of the melena necessitated the third admission for the transfusion of 280 c.c. of blood, Jan. 29, 1927. As a result, the hemoglobin then rose from 37 to 50%. Feb. 16, on the fourth admission, blood findings were as follows: Erythrocytes numbered 2,184,000; leukocytes 8800; platelets 84,000; hemoglobin 36%. The bleeding time was 14 minutes and coagulation time (capillary tube) 3½ minutes. Clot retraction was complete in 20 minutes. Ultra-violet therapy of the entire body was continued for 3 months,

with a simultaneous rise in the platelets to 235,000 on June 9. The spleen was easily palpable 4 cm. below the costal margin. June 28, there was an attack of acute follicular tonsillitis, followed by melena and purpura. August 5, after a summer spent in the open at the seashore, during which there was freedom from symptoms, the blood findings were as follows: Erythrocytes 5,500,000; platelets 122,000; hemoglobin 88%.

Hematemesis and melena resulted in a fifth hospital admission, Nov. 11, 1927. There were a few small bruises on the legs. The spleen extended to the umbilicus. Tonsils were large and infected. Hemoglobin was 68%; platelets 115,000; and the bleeding time was 3½ minutes. A blood culture was negative. Two transfusions of 310 c.c. and 200 c.c. respectively, were given on successive days. In spite of a third transfusion of 250 c.c., the hemoglobin fell to 22% and the erythrocytes to 1,345,000 on Dec. 6. Dec. 8, a fourth transfusion of 250 c.c. was given. In view of the steadily retrogressive course, Dr. Lewis decided to remove the spleen at once, which he did successfully, Dec. 11, 1927. On the day after operation blood findings were: Erythrocytes 2,215,000; leukocytes 22,400; platelets 152,000; hemoglobin 42%. The improvement, in spite of a mild bronchopneumonia, was remarkable. Dec. 13, platelets numbered 100,000; Dec. 14, 168,000; Dec. 16, 380,000; Dec. 19, 290,000. She was discharged from the hospital, Jan. 4, 1928, free from all symptoms. In the dispensary, Jan. 11, the hemoglobin was 48% and the bleeding time 8 minutes. Feb. 1, the hemoglobin was 75% and bleeding time 5 minutes. There has been no recurrence of symptoms, but a marked general improvement in the 5½ months since operation.

Abstracts of the 35 cases occurring in children between the ages of 3½ and 12 yr., which have been reported in literature, are given in the accompanying table.

(See table of abstracted cases.)

Certain facts concerning the disease as it occurs in children are elicited by a review of the 35 cases. The earliest appearance of symptoms was at 1 yr. in Mayo's case, and at 14 months in Melson's. The average age of onset of symptoms for the entire group was 5 years. There were over twice as many females as males, 23:10. There were 4 acute cases in the group with duration of symptoms of 2, 7, 9 and 14 days, respectively. Among the chronic cases, symptoms had been present for the longest time in that of Barbash, 9 years. Bleeding occurred from the following sites, in order of frequency: Skin 35, nose 30, gums 17, bowel 11, stomach 9, bladder 3, sclerotic 2, vagina 1. The spleen was observed to be enlarged or palpable in 15 instances, and to be normal or not palpable in 11. Palpable spleens ranged in weight from 75 to 240 gm.; those not palpable from 71 to 125 gm. Most of the acute cases had enlarged spleens. In each of 5 patients with a report of the tourniquet test before and after operation, the showers of petechia produced before could not be produced afterward.

Changes brought about in the laboratory findings by splenectomy were fairly constant. The platelets, which before operation seldom numbered over 50,000, promptly increased to an average of 5 or 6 times their previous number during the first day. In only 5 instances did this fail to occur. The sharpest rise in number of platelets occurred in Hitzrot's case, from 40,000 before to 600,000 one hour after operation. The maximum number was attained most often between the fourth and the eighth day after operation, following which there was often a decrease to normal or to subnormal figures. Only 2 children had subnormal platelet counts at the end of 1 year, one without any bleeding, the other with very little bleeding. Most of those cases with subnormal platelet counts remained free from symptoms.

The average pre-operative bleeding time was 25 minutes, which in almost every case fell to a postoperative normal. In those 3 in which it remained elevated, however, the abnormal symptoms had disappeared. The figures for clot retraction were less convincing. Before operation there was no complete

CASE	Author	Date	Sex	Age	Type	Symptoms	Duration	Spleen	Platelets	Bleeding Time	Clot Retraction	Tourniquet Test	Hb	Follow-Up	Result
1	Barbash	1928	M	12	Severe chronic	Purpura Epistaxis Bl. gums	9 yrs.	Just palpable	Before 94,000	Before .8 min	Before 0		34%	No recurrence of symptoms in 1½ mos.	Good
2	Bass and Cohen	1924	F	8	Mild chronic	Purpura Epistaxis	3 yrs.	Just palpable 180 gm.	Before - 11,000 After - 1 hr. 42,000 4 d. 220,000 3 w. 100,000 6 m. 60,000	Before - 20 min After - 1 min	Before - 0 After +	Before + After 0	60% 85%	No recurrence of symptoms in 6 mos	Good
3	Clopton	1925	F	?	Mild chronic	Purpura Epistaxis Bl. gums	Onset at 5 yrs.	Normal	Before - 20,000 After - 10 d. 50,000 1 m. 90,000 7 m. 20,000 10 m. 200,000 15 m. 120,000	Before - 37 min After - 2 min	After - 0	After 0		Occasional epistaxis, petechiae, and purpura. Slow but marked improvement in 15 mos.	Fair
4	Clopton	1925	M	?	Severe Chronic	Purpura Epistaxis	Onset at 5 yrs.	Rather large	Before - 25,000 After - 2 w. 60,000 6 w. 95,000 9 m. 150,000	Before 13 min After - 2 min				Occasional small epistaxis and purpuric spot in first 6 mos. None since then. Marked improvement in 15 mos.	Good
5	Cohn and Lemann	1924	M	5½	Mild chronic	Purpura etc.	3 mos.	Not palpable 100 gm.	Before - Scanty After - 4 w. 400,000 6 w. 145,000 4 m. 200,000 12 m. 700,000	Before - 5 min			55%	No recurrence of symptoms in 12 mos.	Good
6	Eppinger	1921	F	5		Purpura Epistaxis	For some time	Enlarged	Before - Very few After - Markedly increased				20%	No recurrence of symptoms in 6 mos.	Good
7	Fitz-Hugh	1925	F	8	Mild chronic	Petechiae Purpura Bl. gums	5 mos.	Not palpable 71½ gm.	Before - 6,000 to 30,000 After - 1 d. 74,000 3 d. 228,000 2½ m. 250,000	Before - 30 min After - 2 min	Before 0 After - delayed	Before + After 0	52% 85%	No recurrence of symptoms in 3 yrs.	Good
8	Griffin	1925	F	11	Mild chronic	Purpura Epistaxis	5½ yrs.	Easily palpable 168 gm.	Before - under 50,000 After - 1 d. 100,000 5 d. 430,000 3 w. 50,000	Before - 38 to 60 min After - 2½ min	After 0	Before +	56%	Slight recurrence of petechiae and epistaxis with a cold after 6 wks. No other recurrence in 1 yr.	Good
9	Griffin	1925	F	11	Mild chronic	Purpura Epistaxis Bl. gums Bl. sclerotics Melena	5½ yrs.	Easily palpable 202 gm.	Before - 54,000 After - 3 d. 643,000 6 d. 780,000 18 d. 88,000	Before - 10 min After - 2 min	Before 0 After delayed	Before +	38% 47%	No recurrence of symptoms in 5 mos.	Good
10	Hauke	1921	F	5	Severe chronic	Purpura Epistaxis Hematemesis	2 yrs.		Before - under 30,000 After - 1 hr. 8,000 1 d. 10,000 For wks. 10,000 to 15,000 6 m. 3,600	Before - 37 min			15% 81%	Occasional petechiae. No other recurrence of symptoms in 6 mos.	Fair

11	Hitzrot	1923	F	8	Mild chronic	Purpura Epistaxis Bl. gums Hematemesis Melena	1yr.	Palpable 120gm	Before 40,500 After 1hr 600,000 2yr. Normal	Before 20 over min After 2½ min	Before 0		40% Normal	No recurrence of symptoms in 2yrs.	Good
12	Kaznelson	1919	F	11	Mild chronic	Purpura Epistaxis Hematemesis	3yrs.	Not palpable.	Before 600 After 3d 267,000 7d. 13,000 10m 6,600 1yr 28,000 6yrs 60,000		Before 0 After incomplete		120% Normal	Occasional epistaxis for 5mos. and few petechiae for 1yr. No other recurrence except severe bleeding after abortion in 6yrs.	Fair
13	Lafourcade	1926	F	9	Mild chronic	Purpura Epistaxis Hematuria Hematemesis Melena	2yrs.	240gm	Before 12,000 After 2 200,000 2m	Before 8min After normal	Before 0 After +		20% 70%	No recurrence of symptoms in 2mos.	Good
14	Lautier, Oberling, and Woringer	1927	?	5	Severe chronic	Purpura Epistaxis	Onset at 2yrs.		Before 10,000 After marked rise	Before much prolonged			10%	Epistaxes ceased. Died 5d after operation of broncho-pneumonia	Died
15	Mayo	1925	F	9	Mild chronic	Purpura Epistaxis	8yrs	Not palpable Enlarged	Before 180,000 After No increase	Before prolonged After No increase	Before 0	Before +	30%	Bled for first 4d. No recurrence of symptoms some months later	Good
16	Melson	1925	F	8	Mild chronic	Bruising Epistaxis	7yrs.		After 300,000	Before over 1hr. After over 1hr.	Before 0 After +			One epistaxis. No other recurrence of symptoms in 1yr	Good
17	Melson	1925	F	4	Severe acute	Purpura Bl. gums	1wk.		Before 56,000 After 1hr. 208,000 2m. 130,000	Before prolonged				Marked improvement in 2mos.	Good
18	Myers	1925	F	10	Mild chronic	Petechiae Epistaxis Bl. gums	16mos.	Palpable 75gm.	Before almost 0 After 1d. 50,000 18d 390,720 5m. 479,200	Before 20min After 2min.		Before + After 0	42%	No recurrence of symptoms in 5mos.	Good
19	Myers, Maingot, and Gordon	1925	M	6	Mild chronic	Purpura Bl. gums Melena	1mo.		Before 0 After 1hr. 104,000 4d. 204,000 8d. 250,000 5w. 1,000,000	Before 15min After 5min		Before + After 0	55% 40%	No recurrence of symptoms in 5wks.	Good
20	Peterson	1925	M	6	Mild chronic	Purpura Epistaxis			Before 16,000	Before ++				Hemiplegia on 10th day after operation. Died on 13th day.	Died
21	Platou	1926	M	7	Mild chronic	Purpura Epistaxis	4yrs	Not palpable. Moderately enlarged.	Before 40,000 After 6hr. 114,000 1d. 125,000 2½m. 260,000	Before 12min After 2min.	Before 0		50% 62%	No recurrence of symptoms in 2½mos.	Good
22	Reuben and Claman	1928	F	3½	Severe acute	Petechiae Epistaxis Bl. gums Hematuria Melena Bl. vagina	2d.	Enlarged	Before 10,000 After 18hr. 68,000 6d. 590,000	Before prolonged	Before 0		46% 70%	No recurrence of symptoms in 18mos.	Good
23	Reuben and Claman	1928	M	6½	Mild chronic	Purpura Epistaxis Bl. gums Melena	14mos.		Before 78,000 After 5d. 385,000 8d. 487,000	Before 15min After Normal	Before 0 After +	Before +	70% 70%	No recurrence of symptoms in 4mos.	Good
24	Reuben and Claman	1928	F	9½	Acute	Purpura Epistaxis Bl gums	9d.	Enlarged	Before 41,600 After 1d. 43,000 2d. 4,000 13d 4,000 1m. very few	Before 20min After 17min.	Before 0 After 0	Before +	55% 70%	Clinically cured. No recurrence of hemorrhage in any form in 1mo.	Fair

25	Reuben and Claman	1928	M	8	Acute	Purpura Epistaxis	14 d.	Enlarged	Before- 14,000 After- 2 hr 62,000 1 d. 246,000 2 d. 474,000 1 yr 483,400	Before. 6½ min		After +	68% 80%	No recurrence of symptoms in 1 yr.	Good
26	Schmidt	1917	?	11	?	Purpura Epistaxis	?		Before- reduced After- markedly increased		Before 0			Improvement-Symptoms decreased	Fair
27	Spence	1928	F	6	Mild chronic	Purpura Epistaxis Bl. gums Hematuria Melena	1 yr.	Palpable 117 gm.	Before- 6,450 After- 2 d. 203,600 6 d. 344,600 4 m. 243,000 8 m. 400,000	Before- over 30 min After- ¾ min.			62%	No recurrence of symptoms in 8 mos.	Good
28	Steinbrinck	1922	F	5	Severe chronic	Purpura Epistaxis Hematemesis	2½ yrs.	Not palpable	Before- 700 After- 1 d. 10,000 2 m. 19,226 6 m. 3,300	Before- 12 to 37 min. After- 5½ min	Before- incomplete After- slowly	After +	15% 81%	Few epistaxes and petechiae at 5 mos Much improved at 6 mos.	Fair
29	Stewart	1928	F	3½	Mild chronic	Petechiae Bruising Epistaxis Bl. gums Hematemesis Melena	1½ yrs	Not palpable	Before- 22,000 After- 1 hr 90,000 1 d. 130,000 3 d. 215,000 5 d. 370,000 12 d. 650,000 18 d. 740,000	Before. 15 min. After- 1½ min	Before 0	Before 0	45% 65%	No recurrence of symptoms in 3½ mos	Good
30	Stewart	1928	F	7½	Severe Chronic	Purpura Bruising Hematemesis Melena Bl. gums	1½ yrs.	Markedly enlarged	Before- 72,000 After- 1 d. 152,000 2 d 100,000 3 d. 168,000 5 d. 380,000 8 d. 290,000	Before- 14 min After- 5 min	Before- delayed		22% 75%	No recurrence of symptoms in 5½ mos.	Good
31	Sutherland and Williamson	1925	M	9	Mild chronic	Purpura Bruising Epistaxis Hematemesis Melena	7 mos.	Palpable 3 x normal size	Before- 5,000 After- 3 d. 150,000 1 m. 350,000 3 m. 200,000	Before. 12 min After- normal	Before 0 After +	Before 0	20% 70%	No recurrence of symptoms in 5 mos.	Good
32	Sutherland and Williamson	1925	F	8	Severe chronic	Purpura Bruising Bl. gums Epistaxis Bl. sclerotics Hematemesis Melena	3 yrs.	Palpable 2½ x normal size	Before- 18,000 After- 1 d. 32,000 1 m. 160,000 3 m. 30,000 5 m. 130,000	Before. 10 min After- 2½ min	Before 0 After +	Before +	40% 75%	Petechiae and bruising persisted but less. No recurrence of other symptoms. Marked improvement in 5½ mos	Fair
33	Tietze	1926	F	5		Purpura Epistaxis	?	Normal	Before- 8,300 After- 1 hr. 11,000 18 hr. 11,000 1 w. 30,000	Before. 20 min After- 6 to 8 min.	Before 0			Slight epistaxis once. - No other recurrence	Good
34	Vincent	1925	F	6	Mild chronic	Purpura Epistaxis Bl. gums	2½ mos.	Not palpable 125 gm.	Before. almost 0 After- 2 d. very much diminished 15 d. normal or above 4 m. mod. increased	Before. 35 min After- 3 min.	Before 0 After +	Before + After 0	60% 90%	Slight epistaxis on 4th day. No other recurrence of symptoms in 4 mos.	Good
35	Vogel	1924	M	12	Mild chronic	Purpura Epistaxis Bl. gums Melena	5 yrs.	Normal size	Before- 25,500 After- 2 yrs. 20,000	Before. 90 min After. 5 min.	Before 0 After- incomplete	After- 0	50% 89%	Occasional epistaxis at first. No other recurrence of symptoms in 2 yrs.	Good

retraction in any case. After operation there was complete retraction in 7, incomplete or delayed retraction in 5, and no retraction in 3. The average case had a moderately severe secondary anemia, as indicated by an hemoglobin of 45%.

An analysis of the clinical results obtained in this group of children showed ultimately complete disappearance of all symptoms, that is, a good result, in 26 of the 35 cases, or 74%. It showed marked improvement in the general condition, in spite of the occasional recurrence of some symptoms or group of symptoms, that is, a fair result, in 7 cases, or 20%. Hence, 94% of the entire group of children showed ultimately definite improvement after removal of the spleen. No cases failed to improve, although 2 patients died of complication, one of bronchopneumonia on the fifth day after operation, and the other of hemiplegia on the thirteenth day (mortality 6%). Eleven of these patients have been followed for 1 yr. or more; and 1 of them, having a fair end-result, for 6 yr. Additional follow-up work, with determination of the eventual result at the end of a 5 yr. period, must be done in as many of these cases as possible.

A comparison of these figures for children with those of Spence, whose 101 cases included 79 adults and 22 children, now can be made. In Spence's group 68% of the adults showed definite improvement following splenectomy, while in this group 94% of the children showed improvement; 6% of his group failed to show improvement, none of this group; 26% of his group died after operation, 6% of this group.

Conclusions

The results obtained from splenectomy for hemorrhagic purpura in childhood are even more brilliant than those obtained in adults. Removal of the spleen causes an immediate cessation of all bleeding, sharp rise in the number of blood platelets, critical fall in duration of the bleeding time, and a prompt reversal in the tourniquet test from positive to negative. Less promptly does the blood assume its full powers of clot retractility. In some few instances all symptoms will disappear, in spite of the persistence of the previously abnormal blood findings. As pointed out so well by Reuben and Claman, the results obtained from splenectomy in the acute form of hemorrhagic purpura are as good as those in the chronic form. The chief requisite for success in most cases is a correct diagnosis. The spleen should not be removed indiscriminately from every child with hemorrhagic purpura, but only from those who, in spite of treatment by other methods, have recurrences of symptoms, or from those in whom symptoms are sufficiently severe to threaten life. The continued absence of most of the original symptoms of the disease or the marked improvement produced in all of the cases which have been followed for 1 yr. or more, 11 of the 35 reported, indicates the production of not only improvement but also permanent cure.

DISCUSSION

Dr. Silver: I would like to ask Dr. Stewart whether splenectomy is being done only in cases of definite marked reduction of blood platelets, or whether in cases that show bleeding with a large spleen without reduction of the platelets. I would like also to know whether he has any information as to how long these cases go after splenectomy, as a rule; whether the splenectomy *per se* seems to shorten life even if the hemorrhagic condition clears up.

Dr. F. C. Johnson (New Brunswick): I think these cases of purpura are the kind especially young pediatricians are very anxious to see because the results of surgery are certainly remarkable. I saw 2 last year, at the Babies' Hospital, which Dr. Bolling operated on. The intern stayed up all night to count the platelets. From subnormal, the count every hour rose 25, 50, and one time 100,000. The symptoms all stopped. One case was evidently moribund when it came in. It had been transfused to get ready for the operation and the results were beautiful. That is the definite type.

Then there is another very large group of splenic conditions in which surgery is certainly indicated. Splenic anemias, which may include Banti's disease, von Jacksch anemia, and other types of anemia, sometimes purpura, with splenic enlargement, sometimes without splenic enlargement; are helped greatly by operation, removal of the spleen. We had one in New Brunswick this winter. A little girl who had been operated on for hernia. At that time the spleen was known to be enlarged. She was 8 yr. old and came in this time for hemoptysis. It seemed very much as though she had developed Banti's disease and gone on to the stage of gastric varices. She vomited several times, and was transfused. Finally, we

found a rather low platelet count. She had no purpura although she had a positive turniquet test. She had a platelet count of 75,000 or 80,000. The spleen, definitely enlarged, was removed. We couldn't make a positive diagnosis because she didn't have all the typical findings. Many were misleading, yet her platelet count rose rapidly. She improved. It seems as though removal of that spleen removed the source of blood destruction or intoxication to blood forming organs. That made the blood count rise immediately. The red cells jumped up to a normal count and the platelet count went up to normal.

Dr. Stewart: I think the operation should be done in only those cases in which the diagnosis is perfectly clear-cut; in other words, if there is bleeding, if there are petechia or purpuric spots, if there is a marked reduction in the number of blood platelets and a prolongation of the bleeding time. However, all these factors are not present constantly, because during a remission there is frequently, for example, a temporary increase in the number of platelets. If platelet counts are done at sufficiently frequent intervals, one should obtain a low average number in this condition.

I think this question of remission in the course of the disease is most important. One often finds a fairly long period with relative absence of symptoms and a return to relatively normal blood figures; however, the symptoms and the abnormal blood findings return sooner or later. Then we can be sure of the diagnosis and recommend splenectomy.

THYMIC ENLARGEMENT

Harry B. Silver, M.D.,
Newark, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928)

A consideration of thymic enlargement is worth while at this time on account of the variety of opinions as to its importance. When we put a family under the mental agony of possibility of sudden death of a child, it is necessary to make absolutely certain of our ground and to see whether or not it is possible to differentiate persons with this condition. Sometimes removal of a fixed terminology aids in development of a new conception of a condition. Enlargement of the thymus and status lymphaticus, or status thymolymphaticus, is time honored as a cause of sudden death. As long ago as 1614, Plater described enlargement of the thymus in a case of sudden death. In 1889, Paltauf described the syndrome known as status lymphaticus and related it to sudden death from no apparent cause. He described enlargement of the thymus in this condition but did not believe it was the essential pathology. These terms are very often used interchangeably and I believe that in all of our minds they are so closely related that it is very difficult for us to differentiate them.

Status lymphaticus, as described by Paltauf, was considered to be the gross evidence of a nutritional defect. Symmers has recently elaborated the syndrome on an endocrine basis. Marine and others have further extended the endocrine basis and have suggested that the disturbance may be originally in the adrenal rather than in the thymus, and have brought to bear a certain amount of experimental evidence. The characteristic findings in these cases do point to a true endocrine disturbance but none of the evidence available indicates definitely that the thymus is the seat of the disturbance. Certainly, in face of a condition that carries out our conception of a pathology on the basis of secretory hormones, we can hardly believe that its origin lies in a structure that, so far as we can see or reason, is not a gland of internal secretion.

The thymus gland is in part an outgrowth of the endoderm of the third branchial pouch and partly a development of the surrounding mesoderm. Apparently, in early embryonic life the endodermal portion makes up the bulk of the gland but as development progresses the mesoderm predominates. After the second month of intra-uterine life the gland loses its epithelial characteristics and by the seventh month of intra-uterine life shows merely a lymphatic gland with occasional epithelioid structures, the Hassal's corpuscles, already undergoing hyalinzation. Mitotic division in the epithelioid cells has been observed as late as the sixtieth year, but is extremely rare. The lymphatic portion has been described as a mutation of the original endodermal cells but the generally accepted opinion is that it is due to an invasion and replacement by the surrounding mesodermal tissue. The study of the origin of gland tissues is of importance in determining func-

tional affinities and probabilities. Crotti places great stress on the close relationship of the thymus and the thyroid, but in their origin from the same embryologic anlage and their interaction in pathologic conditions.

The size of the gland is subject to great normal variability. Indeed, this is true to so great an extent that the first problem arising is the necessity of setting up some standard of normal limits. The average figures given are about 12 gm. weight at 2 years of age; 35 gm. at puberty; and then a gradual diminution in size. At birth the thymus makes up .42% of the body weight, in later childhood about .12% and at maturity about .05%. Although there is actual growth of the thymus up to the time of puberty, its growth after birth is decidedly below the growth curve for the rest of the body, and after puberty actual retrogression takes place.

In the determination of pathologic enlargement it is necessary to take a more or less arbitrary standard. In our own series, no gland was considered enlarged that did not exceed one-half of the chest width on roentgenologic examination or did not show the characteristic capping effect over the heart shadow. This was a purely practical solution and it is possible that some pathologic glands were thus excluded. However, it would be very difficult to conceive of a smaller gland giving rise to pressure symptoms. At the time the picture is taken the child should be apparently well, as it has been shown that in some of the acute infectious fevers the gland may enlarge to even 3 times its normal size. Our experience has been that x-ray examination is the only possible way to make a diagnosis of enlargement of the thymus. In the pictures I will show, the gland that was actually the largest of the series had given no physical signs; even after its presence was demonstrated by the x-rays, numerous observers were unable to obtain any percussion dullness. Conflicting statistics as to the incidence of enlargement of the thymus are due to 2 major factors. First, physical examination alone is absolutely unreliable, especially in young children. Secondly, on x-ray examination a standard must be set high enough not to include deviations due to stage of respiration or to position of the child. Simple presence of a shadow to right of the shadow of the spine is certainly not sufficient for a diagnosis.

The treatment of thymus enlargement is, at present, I believe, practically limited to use of x-rays. I have found one recent text-book on pediatrics that still recommends large doses of potassium iodide but I believe that writer is alone in this opinion. The technic of dosage I do not feel competent to discuss, but I will say that with sufficiently large dosage reduction in size of the gland can be accomplished. The thymus has enormous regenerative powers, however, and it is a good procedure to reëxamine the child every 6 months, by x-rays, to make certain that the condition has not recurred. This is possible, especially if the child is very young, and I will show pictures of a case in which recurrence was observed. Reactions from treatment are very rare but occasionally happen, particularly if the gland is very large and symptoms are present; this is due to temporary increase in size of the gland from the primary inflammatory reaction and might possibly prove serious. The usual reaction of this type causes a semisuffocation and the secretion of large amount of a thick, glairy mucus. I have seen only 1 case in which this occurred. In using a method of treatment having the potency of x-ray irradiation, numerous theoretic considerations present themselves as to the possibility of injury to other structures, particularly secreting glands in the immediate region. These considerations, however, are not real, as the extreme dosage required for destruction of the undifferentiated lymphatic tissue is so far below that required to affect differentiated secreting glands that the possibility of accidental injury may be ignored. Care must be taken also not to attribute to the thymus or to the treatment conditions that are due to some other factor. One of the cases I will show, had a paralysis of the larynx and palate 10 days after the last x-ray treatment. Radiograph of the chest at this time showed no evidence of enlarged

thymus. Opinion at the time was that the paralysis was due either to the direct action of the x-rays or to involvement of the recurrent laryngeal nerve in the x-ray scar. As, in retrospect, the case occurred at the onset of a moderate epidemic of poliomyelitis, it is probable that it was one of bulbar poliomyelitis. Many other deaths in the presence of an enlarged thymus are probably likewise erroneously attributed.

I believe that it is becoming more and more evident that there are at least 2 definite and distinct conditions in which the thymus is enlarged. Simple thymic hyperplasia, in which enlargement of the thymus is a lymphatic hyperplasia and in which no symptoms occur except those directly attributable to pressure, is one type. The other type is one in which the enlargement is a concomitant part of a general systemic condition. The first group of cases has no other abnormalities and although death from suffocation is conceivable it has never, so far as I can find, been reported or demonstrated postmortem. Holt has stated, after a prolonged observation of cases of this type both with and without x-ray treatment, that they never develop symptoms of status lymphaticus. Jackson reported a case with a gland large enough to cause a tracheostenosis cured by operation with no symptoms of status. The second group consists of the cases classified as status lymphaticus. These, as first described by Paltauf, exhibit a generalized lymphatic hyperplasia in which the thymus may have a more or less prominent part but which is evidenced in all the lymphatic tissues, particularly the lingual and faucial tonsils. Occasionally there are lymphatic deposits even in the blood-vessel walls. Death in these cases is of the sudden shock type, and has been attributed to this condition even in the absence of a demonstrable thymus. The classical reduction in the size of the aorta and the deficient sexual differentiation are of course not demonstrable in the infant but on further study indications may be found to suggest these abnormalities.

Localization of the thymus as the seat of origin of a disturbance of this type presupposes that the thymus is a true gland of internal secretion. In post-embryonic life this is hard to conceive. The only portion of the gland that has the pathologic appearance of an endocrine function are the Hassal's corpuscles and after the second month of intrauterine life these structures are already undergoing changes degenerative in appearance, and by the seventh month are practically entirely hyalinized. The experimental evidence on this point is tremendous and conflicting. Exhaustive extirpation experiments give varying results in the hands of different observers. Patton and Schaffer believed that the thymus had a relation to sexual development and differentiation. Their reports show that removal of the thymus induced an increased growth of the testicles and that castration caused a persistence of the thymus. Delafield and Crotti believed that a close relationship existed between the thymus and the thyroid, both on the basis of their common embryologic origin and because they found that 2/3 of the cases of toxic goiter had an enlarged thymic gland. Papenheim, Howland and Vincent reported extirpation as a cause of defective bone development, adiposity and mental retardation. Gudernatsch, from tadpole experiments, believed that growth was increased and metamorphosis delayed. Crotti, on account of the high phosphorus content of the gland, believed it played a rôle in phosphorus metabolism. Parck and McClure, however, proved conclusively that neither extirpation nor transplantation of the thymus had any effect except that incidental to the operative trauma or to the environment of the experimental animals. Tongu states that on the whole the evidence convincingly indicates that the thymus is not a gland of internal secretion.

The clinical symptoms of enlargement of the thymus are entirely dependent on pressure in the critical space of Gravitz. This space is in the superior opening of the chest and measures in infants about 2 cm. anteroposteriorly. In it lies the thymus, trachea, esophagus and large blood-vessels and nerves. It is easy to conceive how pressure here would

give all the characteristic symptoms. The symptom we have found most suggestive is the "crow", particularly noticeable when the child first awakens and in attempting to move extends its body and retracts its head. True thymic asthma was not seen in any of these cases. Percussion has been of aid in some and very misleading in others.

The fact that typical signs of status lymphaticus, as described by Paltauf and Symmers, narrowing of the aorta, configuration of the body, and faulty distribution of hair, may be present with a normal or atrophied thymus should also lead us to separate these conditions. My discussion is not purely theoretic. I believe that it is essential to remember that reduction in the size of the thymus in a child that has status lymphaticus is not a surety against its manifestations. On this point, Griffith says: "When these symptoms have clearly pointed to pressure by the gland such treatment (x-rays) is entirely indicated. In all other cases, however, there seems to be no logical reason for its use, since the enlargement is a result and not the cause of lymphantism." X-ray reduction of the gland may have some effect on this obscure underlying condition but a child with a normal sized gland, as I shall show in this series, following the simple shock of a hypodermic injection, gave a reaction typical of those ascribed to status lymphaticus.

I wish to say a few words regarding the hereditary aspect of this problem. Plater, in describing the first case, mentions 2 similar deaths in the same family. Griffith, who describes it as a lymphatic diathesis, believes it has a definite familial tendency. In the present series there is one interesting group. In one family the first child died suddenly at 5 months from no apparent cause, and a diagnosis of thymic death was made, not confirmed by either x-rays or autopsy. There have been 2 subsequent children both of whom show under radiography definite thymic enlargement, without any clinical symptoms. However, in the rest of the series we found nothing that would lead us to believe that the other children had the same condition, and in the few that we have had an opportunity to radiograph the thymus has been normal.

I wish to show a few slides made from some of these cases to illustrate some of these points:

(1) A child aged 2 months who had what was described as fainting spells. The gland is within what we consider normal limits. There is no crow, dyspnea or percussion dullness. There have been no abnormalities noted in the year since the picture was taken.

(2) This patient had a very definite crowing cry and a clearly demarcated percussion dullness. Received a number of treatments by x-ray with no effect until a very large dose was used.

(3) This series of plates was made from a child who on numerous previous examinations showed no abnormalities. When about 2 months old the crow was noticed on awaking and then it was easy to percuss out a wide area in the second interspace. Under treatment the gland returned to its normal size. Six months later the gland had again attained its original size and was again irradiated. The next slide shows reduction after the second series of treatments.

(4) This patient had a persistent cough and on numerous examinations gave no increased area of dullness. When about 3 months old, on routine examination, this dullness was made out and confirmed by x-rays. This case was successfully treated by x-rays and 10 days later developed a laryngeal and palatal paralysis, with death in 2 days. We believe that the child died of bulbar poliomyelitis.

(5) This child was brought in for a persistent cough. There was no evidence of thymic enlargement, on percussion. Radiograph showed it. The cough disappeared after irradiation and the size of the gland is reduced.

(6) This is the largest gland we have seen and in spite of repeated and careful examination by different observers no physical signs could be made out. This child and an older one both had large thymus glands without any symptoms or physical signs. They

were both x-rayed at the request of the mother on account of the sudden death of an earlier child and the attendant was surprised by the x-ray findings. This child had a rather severe reaction to treatment.

(7) This case was diagnosed at the second week and treated successfully. This plate was taken at 5 years of age and is apparently normal. However, on receiving the intradermal Schick test the child went into complete collapse, pulse imperceptible, cold sweat, and fixed dilated pupils. He looked as if he was going to die. In about 15 minutes he left the office perfectly well. This is the sort of thing that makes one believe that there is more to some of these cases than simple thymic enlargement.

(8) This patient had a typical crow and an area of percussion dullness. Both disappeared after irradiation.

Conclusions

(1) That enlargement of the thymus is primarily a lymphatic thing and in itself not a manifestation of an endocrine disturbance.

(2) That pressure symptoms of an enlarged thymus are essentially the same as pressure symptoms from any adenitis, and reduction in the size of the gland will remove them.

(3) That where the gland enlargement is due to a systemic or endocrine disturbance originating elsewhere, reduction in size of the gland does not necessarily have any effect on the general process, any more than the excision of a gland does in Hodgkins disease or syphilis.

(4) That although x-ray treatment is recommended for its effect on the local condition there is no evidence that it has any effect beyond the purely mechanical.

(5) That, undoubtedly, in the vast majority of cases of enlarged thymus that we see, there are present no such changes as are attributed to status lymphaticus.

I wish to thank Drs. Kaufman and Wyatt of the Roentgenologic Department of the Newark Beth Israel Hospital for their kind assistance.

DISCUSSION

Dr. William London (Perth Amboy): I think there are 2 things we have to be careful about in interpreting x-ray findings of the chest in an infant. One is, the picture should be taken during expiration. A picture taken during inspiration that shows an enlarged thymus is not worth much, because we do know that if you take a picture during inspiration, many, many times you will get what looks like a very large thymus. Get your picture during expiration and you will find you have an absolutely normal thymus. Liss did considerable work x-raying the chests of infants from birth through the first year. He found that point was quite important, that unless you differentiate between the inspiratory picture and the expiratory, you are going to diagnose an enlarged thymus in many infants when it doesn't exist. Then, there is another point. It is practically impossible to differentiate between a shadow due to the paratracheal glands and one due to enlarged thymus. If Dr. Silver, or the roentgenologists, have found some way of differentiating such shadows, I would like to know it. I have talked to Liss and other roentgenologists. They admit there is no way of telling definitely, whether it is a thymic shadow or paratracheal glands, when you put it up to them squarely.

So far as symptoms of thymic enlargement are concerned, we have to use extreme care in making a diagnosis of thymic enlargement from the symptomatology plus x-ray findings, merely because we find a child with a "crow". We know now, because of work done in the past year on infants, young infants during the first 6 months, chemical analysis of the blood, with phosphorous and calcium determinations, that you can get tetany as early as 1 month. In the past 6 months at the New York Nursery and Childs Hospital, I have seen demonstrated 3 definite cases of tetany in infants from 1 to 2 months old, proved definitely by calcium and phosphorous determinations of the blood.

Dr. F. I. Krauss (Chatham): Dr. Silver has brought out a very interesting point, the relationship between symptoms and size. The case with larger shadows had absolutely no physical signs and no symptoms whatsoever. I have never been able to comprehend the correlation between the two. If these symptoms are due to pressure, how can we say one child with a small shadow has symptoms, and another case with large shadow has no symptoms? I have always felt there must be some nervous dysfunction with this condition. To my mind it correlates with the question of bronchial asthma, which is also very often helped by x-ray treatment. What it does, we don't know.

The question of the association of nervous symptoms must arise, and to me this is more important than size as demonstrated by x-rays.

The other question Dr. London brought out here, is the importance of the x-ray findings being over emphasized. I remember a case I was very much interested in. The child had a crow from birth. I had it x-rayed by one man, the x-ray pathologist at our hospital, and he showed distinctly an enlarged thymus. I wasn't satisfied with his x-ray pictures. I sent the child to another man to be x-rayed. His picture showed an entirely different proposition—no enlargement. Then I sent the child to Dr. Orton, in Newark, for examination, and Dr. Orton decided the thymus was not at fault. The crow was due to some fault in the action of the inspiratory muscles, and

the condition would clear up in the course of 6 or 8 months; which it did.

I would like Dr. Silver to enlarge, if he will, upon the first point, the question of the symptoms depending on the size of the gland. The point of status lymphaticus is well brought out. I know some tonsil men who refuse to operate on some of their cases, particularly important private cases, unless they have an x-ray showing first that the thymus is not enlarged. It seems to me in older children, 5 or 6 years old, that this is going to an extreme.

Dr. Miller: I would like to ask Dr. Silver why it is necessary to expose to x-rays these children with large thymuses, but with no symptoms, because there is some danger, I understand, in so doing? What does he think of the present method in many obstetric hospitals, viz: If they think they have an enlarged thymus to expose them to x-ray? There is then a minimum amount of danger, of course; and one should remember another item, viz.: the expense to the parents. I have long been very skeptical as to the relation of a great number of symptoms that are attributed to thymic enlargement. We know, some men are almost obsessed on this subject. I have in mind 2 cases of asthma that have been treated by x-rays for enlarged thymus.

It seems to me that if the thymus is large enough to produce pressure symptoms, it ought to be demonstrable by percussion or even by feeling the gland in the sternal notch, or by a very old method, known as Smith's method, of demonstrating enlarged mediastinal glands; this was to put the plane of the face parallel with the plane of the ceiling, and if large glands are present, we often hear a humming sound.

I came here hoping that this very moot question as to enlarged thymus, and symptoms produced by it, would be elucidated. It seems to me the problem of this mysterious gland, and its so-called excretion, is just as obscure as ever.

Dr. F. C. Johnson (New Brunswick): The question Dr. Krauss brought up interested me very much because one of our rhinologists insists on taking pictures of all his children before taking out tonsils. It adds a fee to one which is already adequate in most cases and doesn't prove much. He gets a picture and usually operates anyway. He gets away with it.

I had a death during tonsillectomy in which the postmortem showed a moderately enlarged thymus. I am perfectly sure one that wouldn't have shown much on x-raying. The thymus extended down between the lung and heart and did not show the spread that we look for in x-ray pictures.

I wish very much, if there is any definite opinion about when to x-ray children before operations and other procedures, what to do after you x-ray them about the shadows which show in the upper mediastinum, that we might hear what the general impression is.

As to pressure symptoms, I think it is very questionable that the enlarged thymus will cause pressure enough to produce a crow. The largest thymus gland I have seen in my own practice was in a little Italian baby having repeated and constant convulsions. It had gone on a good while before I saw it. X-ray pictures showed an enlarged gland with a big shadow, yet there was no crow. The symptom was convulsions.

I would like to ask Dr. Silver, also, if he has considered the therapeutic question of using radium instead of x-rays. In some clincis it is being done with the idea that the radium pack can be applied over the organ to be treated, that the spread of effect will not take place and other organs possibly be damaged, which you do not wish affected. I have always used radium. It has worked very nicely in cases that have had definite symptoms.

Dr. Silver: I am very glad to see the amount of interest that this question arouses. I think it is really a question that does interest us all.

Dr. London spoke about expiration in taking x-ray pictures. Our habit has been to take, where we have been able to do so (most of this has been in clinic material), more than one set of pictures on the same child. Then I believe our standard of taking as a minimum transverse measurement one-half of the chest width is high enough. That is the opinion of roentgenologists. As I said, we may miss some glands pathologically enlarged, but I doubt very much if any of the glands we are including in a transverse diameter of more than one-half of the chest, regardless of the stage of respiration, are normal in size.

On the question of differentiation between the pre-tracheal glands and thymus, of course, from the x-ray standpoint I cannot speak with authority. My impression is that roentgenologists believe the density and the consistency of the type of shadow is sufficient to differentiate. The smooth, clear outline of the thymus gland, the density of the whole gland tissue as it shows on the plate they believe will differentiate it from a chain of different glands that would show varying densities.

As to the crow, as has been asked by a number of men, being due to pressure or whether it is due to nerve reaction or pressure on recurrent laryngeal instead of trachea, I do not know. As Dr. Hyman mentioned, the crow may be due to some extraneous condition. Quite a bit of work has been done by Dr. Peshkin, at Mt. Sinai Hospital, in New York. They thought most of the crow was due to congenital laryngitis, and most of the symptoms we see are external to the gland itself.

There is one thing, with a definitely enlarged gland and crow, you can by bringing the child's head way back causing increased pressure, increase the intensity of the symptom and I believe there must be to some extent a true pressure relationship.

The reason why some of the large glands give signs and the small ones don't, I believe is that we are only seeing pictures in one plane. We don't know from the x-ray picture how large that gland is in weight. We are only seeing in one plane how deep it is. We tried to take lateral views of these things in order to differentiate these thin, shell-like, large glands from glands that were rather short, lateral and deep. It has been unsuccessful. We haven't been able to get clear enough pictures to find out these things.

In determination of the necessity for treatment, as a doctor has said, there have been a lot of obstetricians x-raying all the new-born if the glands show enlargement.

One of the points I tried to bring out in this whole problem is this. The reason this x-ray work is being done is not the enlarged thymus. It is the fear of status lymphaticus, the fear of sudden death, as Dr. Johnson mentioned, on the operating table. As far as the evidence shows, there is no definite relationship between enlargement of the thymus itself and sudden death. If the enlargement is an incidental portion of a generalized gland enlargement, then you may have

sudden death, regardless of whether you reduce the thymus by x-rays or don't treat it at all.

From a practical standpoint there is no particular value in irradiation of the thymus for status lymphaticus and if you are irradiating it for simple thymic enlargement it is an unnecessary procedure unless you have true symptoms. I think that is the stand we have been forced to take and that is what most men are coming to. Enlargement of the thymus without symptoms, if it is simple enlargement, is of no importance, because the evidence today, and Marine and others back it up, is that status lymphaticus is primarily adrenal, and if it is primary adrenal, there is no indication for x-ray treatment of the thymic gland in cases without symptoms. The only cases, I believe, at the present time that are benefitted at all by x-ray treatment are the cases of simple thymic hyperplasia and only then when the gland is large enough to produce actual symptoms. The fact that some of these crows disappear after papilloma is removed or tetany is corrected does not exclude the possibility of some crows being due to actual pressure on the trachea. Actual pressure is hard to describe. We know there is relief in some of these cases and the gland is reduced. That is as far as we can go at the present time.

Regarding the percussion difficulties and difficulties of diagnosis on physical signs in these cases, I think the more of these cases you have an opportunity to see, the more evident it becomes that the physical signs are very misleading. I think very possibly that is due to the same problem. You see some of these glands postmortem spread out. Although they give a big shadow, possibly by carrying the nerve trunk along, they give symptoms. Still when you try to make them out on physical signs there isn't enough depth or density to enable one to differentiate them. Then location makes it particularly difficult on account of the mediastinum and heart. I know some of these cases we have gone over and over. Even when it was there it was very difficult to demonstrate it.

The use of radium in these cases as therapeutic measure, I don't feel competent to discuss. Our physiotherapists seem to be a little more afraid of radium than of x-rays. It is very striking, if it is true, that with radium you can keep more surely within the region of the gland itself and not spread up into the thyroid. It may be a factor and it may be worth considering. As I say, the best x-ray opinion that I have been able to obtain is that on account of the difference between the thymus and thyroid, one being undifferentiated lymphatic tissue, and the other a highly specialized secreting cell, the amount of x-rays or radium necessary to bring about changes in the thyroid is so much greater than the amount of irradiation that will reduce a lymphatic structure, that there is no practical danger from the standpoint of by-effects on secreting glands.

Of course the whole question that has been brought up is brought up again, whether the signs we see are due to the thymus or due to something else. It is a very moot question. As I say, we are beginning to believe that sudden deaths are not due to thymus primarily even when it is enlarged, because numerous cases of exactly the same type have normal thymus. It may be perfectly possible that the crow and other symptoms you find, except the physical signs, may be due to something else besides the gland itself.

ANOMALOUS PERITONEAL MEMBRANES

Francis H. Glazebrook, M.D., F.A.C.S.,
Morristown, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928)

When Mr. Lane first reported the result of his investigations concerning "Bowel Kinks" and abnormal peritoneal membranes it was said that his contribution would prove a great boon to suffering humanity. This prophecy is today fully realized. The original Lane reports were received with considerable wonderment; his story was a revelation; few were sufficiently informed to discuss the matter; all were keenly interested, many doubted, the more conservative explored the field which Lane, the pioneer, had opened to the world; and, while all do not go the full way with Mr. Lane, a new era has come and many who granted little at first say now that "much that Lane claims must indubitably be admitted" (Moynihan).

As a result of Lane's work, and exploration of the field by master surgeons at home and abroad, a vast amount of important information has been obtained, and we have today a fairly well standardized understanding of a pathologic entity, with which is associated a complexity of functional disorders which puzzled the diagnostician of yesterday and produced invalidism that baffled the best minds in the surgical, medical and neurologic fields.

Finding myself the victim of some of this pathology at the time when Mr. Lane was visiting this country for the purpose of presenting his views and demonstrating his technic, I was most fortunate to obtain from him an opinion of my own state and a copy of his original report. I have since considered my indisposition at that time a blessing in disguise, for my attention was directed to this subject at an early stage of my surgical experience and, being alarmed about my own

symptoms, naturally I was quite anxious to find out all I could about Mr. Lane's discoveries. Hence, with myself as an ever-present subject for observation, I was enabled to observe more understandingly and to comprehend more fully the problems confronting the physician and surgeon called upon to treat victims of such pathology, both before and after operation.

As a result of my study, and particularly my observations at the operating table over a period of some 15 years, with these lesions ever in mind, I am prepared to agree that the pathology described by Lane is very common, and to state that while I am sure much relief may be afforded by surgical correction in many cases, one must be ever on guard to avoid making conditions worse; for, in the main, restoration and maintenance of function require intelligent follow-up management and education directed to the individual requirements over a long period—possibly for life. Individuals who have suffered long functional disorganization as a result of these lesions are handicapped to a varying degree if they try to partake of indulgences, whether of food or drink; they will suffer in consequence, and it will require strict individual attention to bring them back to functional complacency.

I wish to exclude from this discussion the more serious types of colon infection which Lane describes, and for which he recommends resection of the colon. It is this particular class of patients that has caused most American surgeons to find it difficult to follow Lane and to concede all he claims. It is not my purpose, either, to discuss in detail surgical procedures; I would refer you, in that connection, to a very good article by Dr. Alfred S. Taylor, in the Annals of Surgery, May, 1922.

I shall dwell only briefly on this phase of the subject to say that in general one should keep in mind the normal anatomic relations of the various organs and the normal arrangement of peritoneal distribution and attachments, and must consider very carefully in each case whether any surgical procedure will improve the abnormality. Correction of these lesions often involves stripping off the peritoneal covering, leaving behind extensive raw areas which, if left unprotected, may cause damaging adhesions that not only defeat the operative aims but actually produce new conditions more troublesome than the original lesion. Therefore, painstaking care should be exercised to repair peritoneal abrasions, making use of plastic methods if possible, and always avoiding any procedure which will make possible obstructive adhesions.

For covering exposed areas on the free surface of the bowel or other viscera, or where 2 structures, like the gall-bladder and duodenum, must be separated in a way that leaves raw surfaces in contact, I have for many years used omental grafts. These are cut from a thin part of the omentum, beyond a ligature, shaped to fit the area to be covered, and spread immediately over the raw place; much as in applying a skin graft. They are secured in position by interrupted sutures or ligatures, using very fine plain catgut. These grafts are probably absorbed eventually but they remain long enough to accomplish the desired result, and in several cases where I have at subsequent operations had an opportunity to inspect the area so treated I have found the parts healed without adhesions, and the appearance of some areas indicated that parts of these grafts do actually become vital and grow. This is certainly a rational procedure. Oils and other greasy materials do help, but this method of covering raw areas is far more certain. I always use mineral oil liberally over all viscera handled during an operative procedure.

I shall presume that you are familiar with these lesions, and will not take time to discuss them in detail. Classification of them is extremely difficult, and I prefer simply to consider them as: (1) those conditions found in the upper right quadrant; (2) those of the lower right quadrant; and, (3) those partly upper and partly lower. The various ptosis situations, so far as symptoms are concerned, belong to this pathology, and here the only

justifiable procedure applies where the natural ligaments are either abnormally long or have become stretched so as to permit kinking positions of the organs they support; one may under such conditions plicate the ligaments, but in no case should any part of the hollow viscera be fixed or included in such plication. It is my opinion that in this particular class of cases the drag on the mesentery produces most of the symptoms, as these patients are particularly addicted to abdominal sympathetic symptoms. I believe this alone explains the relief obtained from posture treatment and abdominal support, as I cannot conceive how any support to the outside of the abdominal wall can possibly raise or change the position of displaced organs. What probably happens, as the result of abdominal support, is equalization of abdominal pressure. This will be more fully discussed a little later on.

In the upper right quadrant the most common lesions are those involving the duodenum and gall-bladder, or the colon, duodenum and gall-bladder. Oft-times the lower half of the gall-bladder, including the ducts, is located retroperitoneally. The normal course of the duodenum being altered, gastric symptoms of a most distressing sort may result. In the lower right quadrant the commonest lesions are those involving the distal ileum, cecum and appendix. A common lesion involving both quadrants is the undescended or high cecum. This condition was recently described and beautifully illustrated with x-ray plates in the American Journal of Roentgenology, February, 1928, by Kantor and Schechter. Another quite common and important anomalour arrangement is what I call the retroperitoneal right colon. This may include the entire right bowel but, generally, the cecum and the hepatic flexure are not involved; they fold over the buried ascending colon, actually being in contact. Abnormal attachment of the omentum is another anomaly often seen, the free side of the omentum being attached all the way down the ascending colon, sometimes right down to entrance of the ileum.

One could go on indefinitely describing visceral derangements observed in association with such pathology; these are merely some of the more common forms. I wish, however, to spend my time on another phase of this subject, and so will leave this, incomplete though I know it to be.

There has been much controversy concerning the origin of these membranes. I believe them to be congenital malformations or anomalies developed during the process of fusion of the peritoneum. (Reports of dissecitons on large numbers of infants prove that these conditions exist during infancy in the same proportion as in adults.) One can comprehend the common sense of this reasoning, it seems to me, if he considers the fact that these membranes are found in areas where the peritoneal fusion and distribution is most complicated; certainly these are the localities where malformations would be most likely to occur. Furthermore, one has but to observe at operation the difference in character between these congenital membranes and inflammatory adhesions; they have all the characteristics of normal peritoneum (2 layers held together by areolar tissue), which is not so when peritoneum adheres to peritoneum. Thickened bands, cord-like structures and veils are merely modifications developed by chronicity and evolution.

The activity and tolerance of youth will, as we know, compensate many abnormalities, and this explains why serious symptoms are not, as a rule, recognized until the third, fourth or even fifth decade. A small percentage, owing to location or extent of the malformation, may give definite signs even in the very young. My youngest operative case was a girl of 6 years, with an upper right quadrant anomaly. This child had been from birth a victim of so-called periodic vomiting and her feeding had always been a great problem. I am convinced that many of the "bilious attacks", periodic vomiting, and other manifestations of disordered digestion in children, may be explained by these anatomic conditions. Lane states that 15 to 20% of all persons are in some degree handicapped

by these anomalies. The symptoms produced are due primarily to interference with normal mechanism of the digestive tube. To comprehend how the symptoms are brought about involves a careful study of the physiology of the entire gastro-intestinal tract, the many phases of which help to explain the complex of functional disorders complicated by habits, vital energy, nervous stability and hereditary tendencies of the individual. As a result of interference with the intestinal mechanism, toxins and irritating materials produced by stasis over long periods of time aggravate the situation by depressing the tone and activity of the intestinal muscle, irritate the nerve plexuses, and seriously disturb special secretions and circulation and all the normal physiologic processes. The more chronic the condition, the more damaging the process, the more permanent the functional disorder, and the more difficult the cure.

When extensive sections of the gut are thus affected, there is a general stasis; if only parts of the tube are involved there is retention of irritating and incompatible substances for long periods, resulting, at the point involved, in structural change in the viscera, with consequent contractions and thickening in one place with dilatation and thinning of the wall above the obstructed point. Such local lesions may disturb function at remote points; for instance, slow emptying and reverse peristalsis of the lower ileum may slow the emptying of the stomach.

In regard to symptoms, this phase of the question alone offers material for a most interesting paper. Study of the various lesions, the character of symptoms they produce and why they produce them is most interesting and instructive. I can only touch the high spots in this article. Dyspeptic symptoms predominate and are usually of the hyperacidity type. A common complaint is "gas on the stomach". All these patients suffer from some degree of constipation. Other symptoms are heart-burn, a "lump in the throat", insomnia, vertigo, mental confusion, loss of memory, general weakness, fatigue, aching in various muscles, especially the calves of the legs, poor circulation indicated by clammy cold hands and feet, heart arrhythmias and extrasystoles. In that class of cases where the abdominal sympathetic is profoundly involved, cardio-splancnic phenomena predominate, the blood gravitates into the abdominal veins, and carbonic acid gas is freed into the intestine as a compensatory measure for the low abdominal pressure (Abrams). Under these circumstances there may be enormous accumulations of gas.

The relation of the great sympathetic with the cerebrospinal axis and the nature of its function is involved in much obscurity, but we know that it exerts an important influence over circulation, secretions and nutrition and, when irritated, pains and all sorts of abnormal sensations may be experienced not alone at the point of irritation but reflexly at remote situations. Functional disturbances of the heart, most alarming to the patient, are common; palpitation to an extreme degree may be extremely distressing. Pain referred to as "around the heart" and radiating down the arms, often convinces the patient, and even the physician, that there is serious heart disease. Neurasthenia, with mental depression, morbid fears and all sorts of neurotic complications are also common in this group. Globus hystericus and night terrors are most distressing. Serious melancholia and other profound mental states have a predisposing hereditary back-ground, but overstrain of any organ or group of organs, causing worry and anxiety, will produce in such patients, already mentally unstable, mental collapse. The physical disability of these victims ranges from slight functional disorders to complete invalidism.

In what way are these symptoms produced by this particular class of lesions? The generally accepted idea is that the symptoms are the result of general or systemic toxemia, or as it is more commonly or "fashionably" called, "auto-intoxication". I take exception to this, and wish to state that I do not believe that auto-intoxication, as it is commonly understood, has anything to do with this complexity of symptoms. Poisoning of the

system through absorption of toxic material from the intestine into the circulation is taken for granted by Lane and his followers, but their claim is unproved theory, in fact, there is much evidence to disprove such claims. As I understand systemic toxemia, focal infection is the primary necessity, and the pyogenic type of organism is responsible. Under such conditions there would be the usual consequences of continued absorption of septic material. The cases where the gut is the origin of such infection are extremely rare.

To quote Osler, under the caption of "Toxic Headaches", he says: "Toxic hypothesis—no evidence that this ever causes the condition; vasomotor hypothesis—seems to account for most of the facts; reflex hypothesis—chronic irritation of any organ produces vasomotor disturbances."

I think we can show that these symptoms are the result of purely local disturbance of function of the gastro-intestinal mechanism. The movements of the intestine serve 3 important purposes; onward moving of the contents; mixing of chyme with secretions; contact of the contents with the absorptive mucous membrane and propulsion of the venous blood and chyle away from the bowel. These movements are excited by stimulation or irritation of the contents. To study the action of the digestive tube, I recommend the last edition of "Mechanics of the Digestive Tract", by Alvarez; it is a masterpiece and has revolutionized the old theories. To sum up the teachings of Alvarez, he has definitely demonstrated: (1) That muscle action of the gut is largely autonomous, and stimulus is transmitted from muscle cell to muscle cell. (2) The function of Auerbach's plexus is (a) conduction of stimuli and the coördination of movements; (b) to make muscles respond properly to stimuli coming from the mucous membrane, said stimuli being collected by Meissner's plexus and transmitted by Auerbach's through connecting fibers; (c) to regulate muscular contraction, because without this regulation the intestine would be, literally speaking, "tied up in knots".

The waves of the stomach muscle are from cardia to pylorus. The small intestine works in rhythmic segmenting or kneading movements having nothing to do with forwarding, as that is accomplished by occasional "rush waves". The colon operates by sluggish local contractions and "rush waves" at long intervals. There is normal reverse peristalsis from duodenum to stomach at the terminal ileum and in the right half of the colon. Every tubular organ in the body has an intrinsic and independent power of motion and the motion is easier downward than upward; in the intestine this is normally from above downward, except where there is a reason for reverse action. However, in the event of interference with normal conditions there may be brought about abnormal reverse movement, and disorder in one part of the tube may cause reverse in another; for instance, colon irritation may cause stomach retention. The rate of rhythmic motion is faster the nearer you approach the entrance. The direction of the transport of material in the intestine depends upon gradients of rhythmicity, tone, and the state of irritability. When the gut is stimulated, waves of motion spread out in both directions and under normal conditions go further down the gut than up. In obstruction or ileus the reverse is sufficient to cause vomiting of fecal material, while in mild cases, or those with "kinks" or other partially obstructing lesions, there is simply what we may call flattening of the gradient, resulting in retention of the material (Alverez; Second Edition).

With this understanding of gastro-intestinal mechanism, let us now hook up the other important factor, that great autonomous nerve control, the sympathetic system and vagus. These great nerve systems preside over circulation and involuntary muscle structure, and by exerting controlling influence over secretions are most important factors in the physiology of the digestive apparatus. The plexuses of Auerbach and Meissner consist of fibers from these 2 nerve systems, and while the main purpose of these plexuses seems to be to "expedite conduction and to correlate the activities of different regions"

(Alvarez), when stimuli are excessive the great abdominal solar plexus receives the shock, impulses are centralized there, and disorders of function result.

A third factor is the behaviour of digestion under such conditions; any influence which delays the normal emptying or seriously affects the secretions of the digestive tract must of course disturb normal digestion; prolonged stasis produces increase in the bacterial content and results in accumulation of undigested food products and irritating toxins. Toxins are always present in the intestine, and the symptoms are due to loaded sections of the bowel behind stenosed lesions; purging for relief increases the atonicity and leads to irritation over and over again. The normal ferments of the digestive fluids are capable of producing intestinal poisons or enterotoxins under certain conditions; ptomains and other poisonous substances also emanate from microbic putrefaction, which is more apt to take place when stasis is present and when incomplete digestion prevails. There is no evidence that the absorption of these products are poisonous, but there is every indication that they may produce great irritation locally. Furthermore, such local irritation may cause, in acute conditions, serious degrees of shock; positive evidence of serious disturbance of the sympathetic system. Accumulation of large quantities of undigested food may produce irritation sufficient to cause symptoms, irrespective of any such toxic state; many of the so-called "bilious headaches" are due to nothing more nor less than such accumulation. The relief which comes promptly after evacuation of the bowel or stomach, cannot be due to removal of toxins, but is more likely due to restoration of the downward gradient. If such headaches were due to circulating poisons, recovery would be more gradual.

"At Columbia University, College of Physicians and Surgeons, Berg and Jobling have produced partial obstructions representing chronic duodenal stenosis. The animals lived for long periods practically symptom free. There was a compensatory hypertrophy of the intestinal musculature above the obstruction, there was also hyperplasia of the mucosa. Although prolonged stasis and an increase in the bacterial content occurred in the duodenum, significant changes were not observed in other organs. In the face of all this, one cannot avoid the conviction that there must be some defense mechanism in connection with the alimentary tract. On its successful functioning the natural protection against ever present menaces in the intestine must depend. As Berg and Jobling point out, in their experiments the conditions in the duodenum were made most favorable for the multiplication of bacteria and the elaboration of toxins; nevertheless, systemic effects were not produced." (Jour. A. M. A., April 28, 1928.)

In "Archives of Surgery, May, 1928, is a report of experiments by Wangensteen and Loucks, which concludes: "Absorption of histamin from the normal small intestine (duodenum and ileum) of the dog and in simple obstruction of the small intestine of 2 days' standing cannot be detected by the physiologic test for histamin."

Some may ask—what difference is there between assuming that the body is overburdened with waste products and deficient elimination, or that the trouble is produced by irritation from the accumulation of poisons in the bowel? There is a vital difference between the 2 hypotheses, especially involved in the mode of treatment (Einhorn). On the one hand, we have a purely local condition to deal with which we can assure our patient offers hope of relief from symptoms; a much more hopeful outlook than the thought, on the other hand, that the system is reeking with poisons which are sure to produce general organic disintegration, premature old age and death.

Successful management of these chronic obstructive conditions is predicated upon painstaking investigation. Examination should start with a general health inventory. All focal infections should most certainly be looked for and eliminated. Usually this has been done; many of these sufferers have had, for instance, appendix operation, tonsils out

and teeth extracted, with no relief from their symptoms. Special examination involves gastric analysis, chemistry and bacteriology of stools, and complete gastro-intestinal x-ray study by one who is well informed concerning these lesions and their behaviour. Most careful attention should be paid to the character of the symptoms in each particular case, as treatment must be directed individually toward symptoms. If the lesion is one offering relief from surgery, careful follow-up management should be commenced immediately for we must bear in mind that we are dealing, as a rule, with abnormal intestinal canals and with complex functional derangements which cannot be corrected by mere mechanical relief alone, or in a day. Treatment should be exact and each measure prescribed with a reason. The commonly prescribed bulky diet cures for constipation are contraindicated; "to give such sufferers coarse food or large bulky meals is comparable to putting sticks or rags down a drain which has a poor drop" (Alvarez). On the contrary, the diet should be nutritious and planned to leave little residue. Psylium seed and bran add to the burden of the already weakend bowel and should not be used. As the tone and gradient of the bowel is restored, more bulky food may be added, but not of the rough kind. Ample food should be given and when the intestinal flora indicates, one class or another should be restricted until the flora is adjusted. Fresh vegetables, cooked fruits and salads should be a large part of the diet. Acid or raw fruits are very apt to excite hyperacidity. Water should be taken liberally at and between meals. Some assistance must be instituted for constipation. Haphazard use of cathartics is never wise, but these patients demand some assistance to promote and maintain the bowel gradient. I have had best results with a combination of agar and mineral oil (Squibb), without phenolphthalein; when hyperacidity is troublesome, combine with this magnesium oxide and sodium bicarbonate. It may be found necessary to continue these alkalies over long periods of time, for once the stomach gets into bad habits, especially in regard to secretions, it is most difficult to make it behave, and one should not hesitate to continue remedies as long as indicated. I consider Tr. nux vomica a valuable drug in the restoration of bowel tone; it is an appetizer, general tonic and a direct stimulant to the intestinal muscular coat. It may be combined with rhubarb and soda mixture and fluid extract of cascara, when a more definite cathartic action is found necessary than with the agar and oil. When there is poor abdominal tone, some sort of abdominal support is in order and seems to be of some benefit. The explanation of this has already been previously discussed. I have been using a belt designed by Dr. Bassler, of New York. The important thing in connection with such belts is to have them fit properly, and as these people are as a rule malnourished and apt to have bony prominences, a belt to accomplish anything must be designed with this fact in mind.

General reconstructive treatment is in order; plenty of exercise in the open air when possible is the best procedure so far as the physical state of the patient is concerned. In the event that this is not possible, mechanical apparatus and equipment designed to substitute for active exercise is of considerable benefit. There is no question that there is a decided advantage in having really sick and morbid patients under constant and continued observation in an institution. This was emphasized to me by a recent visit to the Battle Creek Sanatorium, where the régime and regular routine prescribed by their doctors, carried out by skillful dieticians and trained attendants, has many advantages in the management of these patients.

Finally, the personal equasion between doctor and patients is an important factor in dealing with those patients who have lost their nerve and have become morbid and discouraged. I have many times had these sufferers come to my office and report that they were doing all right, but just wanted to come in to have me reassure them that they were all right; the physician must be a sympathetic friend. A little "confidence" talk every now

and then telling about others who have recovered, or relating some personal experience in connection with such symptoms, is most comforting and will help restore confidence and bring encouragement.

Above all things let us stop talking to our patients about toxemia and relieve their minds of the fear of incurable auto-intoxication.

DISCUSSION

Dr. B. B. Ranson (Maplewood): When I first observed the title of Dr. Glazebrook's paper about anomalies, I wondered what it was all about. When looking into the subject a little bit more thoroughly and reading his paper, it brought to mind the fact that the surgical profession has been a little lax in appreciation of the importance of congenital lesions which have nothing whatever to do with the acute inflammatory conditions we are so familiar with in the abdomen. The first real stimulus to a concerted consideration of these problems was, of course, brought by Sir Arbuthnot Lane in his classical studies and papers read in this country some years ago. I had the privilege of being with Mr. Lane at the Polyclinic Hospital for several days during his first visit and witnessing some of his very radical colon resections. I was very much impressed with the logic of the fact of Mr. Lane's insistance that we are considering all the time, abdominal lesions which are entirely apart from the acute inflammatory conditions due to the appendix or the gall-bladder or the uterus and adnexa; his insistance upon the fact that a vast number of individuals are suffering from chronic illness which is due entirely to mechanical causes, due to congenital bands and adhesions which have a vast deal to do with some of the most distressing physical ailments with which we meet.

Some years ago I had occasion to refer a case of suspected gall-bladder trouble to Dr. Alfred Taylor and became interested in some of the work which he was doing at the New York Hospital. I think he has gone as far as any one in this country in getting a physiologic and an anatomic basis for these lesions, which he considers a very definite entity, and has produced a line of technic in his operative procedures which relieves these conditions so definitely that there is no question but that in our abdominal work we must consider the fact that the removal of an appendix, which apparently has enough pathology to cause lesions which existed previously, may not represent the total pathology with which we are dealing. We have to go further and look into those congenital bands which are so often present and so many times overlooked.

One of the most interesting cases which I have seen was in the supervisor of our hospital some 8 or 10 years ago at Orange, who had a complex history of having neurotic disturbances, with a picture of what we popularly consider auto-intoxication. When her surgical procedure was attempted she had a perfectly normal appendix, perfectly normal gall-bladder; she had one of those lesions which Dr. Glazebrook has emphasized and termed a retroperitoneal right colon. The entire ascending colon was distorted and buried in bands of adhesions, and the character of those adhesions was entirely different from those which we meet with as secondary to acute inflammation. The bands of adhesions were organized, thickened, fibrous, distorting and interfering with the peristaltic wave to such an extent this woman had a mechanical, what Mr. Lane calls interstitial, stasis all the time. Her relief of that was followed by a complete cure of her condition, a gaining of a great many pounds and improving her general health.

I can recall a number of cases which had been observed in early childhood of that class of individuals, of babies, which we have termed cyclic vomiting; the mothers all call it acidosis. Three of those children having finally come to surgical intervention have presented, in addition to evidences of chronic appendiceal infection, organized definite bands together with the thing which Mr. Lane calls his kink, so thoroughly organized as to distort a portion of the ileum and interfere with the caput and have been obstructive lesions of a definite fixed mechanical interference, requiring careful plastic repair to get relief.

The difficulty about the surgical handling of these adhesions is that many times the surgical procedure does more harm than good; if great respect is not maintained in appreciation of the fact that once the abdomen is opened the tendency toward formation of adhesions is vastly increased. Peritonealizing the raw surfaces is absolutely essential to protection against a recurrence of these obstructive bands. Dr. Glazebrook's suggestion of using omental grafts is one which I have found, particularly in gall-bladder surgery, of very great value.

Last year a young woman of 22 who had symptoms of gall-bladder pathology, with a history of chronic invalidism over a period of 10 years, was operated upon and found to have a perfectly normal gall-bladder, but a dense, firm band of adhesions running from the gall-bladder and circling the upper first portion of the duodenum and entirely encircling the pyloric ring, so that there was a distortion of her duodenum which interfered with the peristaltic wave, and she was made a complete invalid. Removal of that band, together with a cholecystectomy, has produced perfect functioning in the intestinal tract, with a relief of all of this woman's symptoms.

The problem which Dr. Glazebrook has so splendidly presented, as to whether these symptoms are due to systemic absorption of toxins or whether they are due to the vasomotor disturbances, is such a mooted question and one which requires a physiologic expert to finally decide, and has to me been most puzzling. Until this work, to which Dr. Glazebrook has referred, by Alvarez, was read, I had no conception of the possibilities of the vasomotor disturbance of these mechanical interferring congenital bands. But if we can accept the doctrine which has been presented so beautifully by this man in his dissertation upon it, there is, aside from the true toxic absorption from the wall of the gut, which is present in the acute inflammatory lesions, a very definite change of symptoms due to irritation and not definitely to infection. I think that opens a field for our further observation which should be borne in mind by all men doing abdominal surgery, and that we are very much remiss in our thorough care of an individual unless we have eliminated from the picture, after removal of whatever acute infection may be found in the abdomen, a complete restoration of those abnormalities which have been so well described by Dr. Glazebrook.

Just one word about the presence of histamin in the urine specimens; all of the cases which had true toxemia showed large amounts of histamin in

the urine, showing there was a true toxemia connected with the chemical substance which was obtained.

Dr. Francis H. Glazebrook (Morristown): My object was simply to call attention to a state in connection with these lesions which I felt was probably leading some of us astray, and to the very grave danger of not getting the best results in connection with the handling of these patients. I feel, as I say, that the condition, except in those cases that are definitely infectious, in those cases of colon infection with mesentery gland evidence of old infection, probably an old colitis, pyogenic in origin, is very rare. These other lesions are very common, and understanding the mechanics of the gastro-intestinal tract, as we do from Alvarez's teaching, I think it is easy to conceive that a great many of these people are suffering not from auto-intoxication but from local irritation; and if we understand it from that point of view, our problem of treatment is a very much more simple one and at least we need have no fear that these people are suffering from malignant systemic poisoning. I think that is the thing, the one thought I wanted to particularly try to prove and emphasize.

DIAGNOSIS AND TREATMENT OF THE TACHYCARDIAS

Louis Levin, M.D.,
Trenton, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928)

One of the symptoms that attracts the attention of the patient and his physician most forcibly to the heart is tachycardia. Because of the rapidity, the insistent rate, the patient is at once fearful. Aside from precordial pain no subjective symptom is so alarming to the patient. It is for the physician to differentiate the type of rapid heart action and if possible to correct the disordered rhythm, or mechanism. The recent advances in cardiology, from both the clinical and graphic standpoints, have rendered diagnosis of the tachycardias much easier.

The term "tachycardia" will here include the rapid action of the whole or part of the heart. It will not include so-called heart palpitation, which is heart consciousness rather than heart rapidity.

In order to better understand the tachycardias and their production, a short review of the normal cardiac mechanism will not be amiss. Physiologically, the auricles of the heart may be considered as one. The impulse arises in the sino-auricular node located near the junction of the superior vena cava and the auricle. The cause of the impulse and the factors governing the rate of impulse formation are not accurately known. This impulse is intrinsic and is entirely independent of the rest of the body. In order that the needs of the body may be met by an increase or a decrease in the rate of circulation, the heart is subject to stimulation by the vagi and sympathetic nerves. The impulse from the sino-auricular node spreads over the auricle, causing its contraction. The impulse next activates the auriculoventricular node at the lower end of the auricle. It continues into the bundle of His, which divides into its right and left branches at the upper portion of the interventricular septum. The branch to the left ventricle quickly divides into many smaller branches. The right branch extends whole for a greater distance into the right ventricle. Both branches ultimately divide into many fine subdivisions that extend under the endocardium, as the Purkinje system, making intimate contact between the specialized neuromuscular system and the ventricular muscle. When the impulse reaches this point the ventricles contract.

Tachycardias are divided into 2 classes, those of sinus origin and those of ectopic or non-sinus origin.

Sinus tachycardia is a rapid heart in which the sinus node is still the pacemaker. In other words, it is a normal mechanism with a greatly increased rate. It may be due to external stimuli acting through the autonomic nerve system, or to stimuli acting upon the heart itself.

Increase in the heart rate due to various emotions, to digestion, and to exercise, is a moderate sinus tachycardia and is entirely physiologic. The sinus tachycardias due to intoxication by drugs such as nicotin, caffein and alcohol, and disease like the acute and chronic infections, tuberculosis, hyperthyroidism, myocardial degeneration, an acute endo-

carditis superimposed upon an old valvular lesions, and various anemias, are pathologic, at least in so far as their etiology.

Sinus tachycardias are very often influenced by respiration or posture. This may aid in differential diagnosis from certain ectopic tachycardias but, similarly, may mislead us. Usually, deep respiration followed by deep expiration produces a slowing of the ventricular rate. However, at times, in auricular flutter when the rate of block between auricle and ventricle is not constant, deep respiration may change a flutter with a 2:1 block to one of 4:1 block, halving the rate. Probably, clinical recognition of sinus tachycardia is best made by the history of its gradual onset and the fact that it is rarely over 130 per minute. The electrocardiogram gives accurate evidence of the character of the tachycardia.

Treatment of sinus tachycardia is treatment of the condition producing it. Similarly, prognosis of sinus tachycardia is the prognosis of the disease producing it; in the case of the tachycardias due to nicotin, alcohol, and caffein, the curtailment or abolition of these drugs from the diet offers the proper solution. In all cases, after the cause has been properly accounted for and removed, continuation of tachycardia must render one suspicious of an underlying myocardial degeneration.

The ectopic or non-sinus tachycardias may be divided into those due to a circus, or circular, movement in either the auricle or ventricle, and those whose origin is dependent upon one irritable focus which may be in the auricle, the auriculoventricular node, or in the ventricle.

The first tachycardia of the circus type to be considered will be auricular flutter. In this condition the auricle is the seat of a continuous circular movement going at a rate of from 300 to 350 per minute. The ventricle responds to a certain proportion of these stimuli depending on the presence of an auriculoventricular block, which may be 2:1, 3:1, or 4:1 in character. The ventricular rhythm is regular, as a rule, though often times the transition between flutter and fibrillation is so gradual that periods of irregularity may be found. This is known as impure flutter. Various measures may at times influence the degree of block present. I have seen a case of auricular flutter with a 2:1 block change temporarily to a 4:1 block by carotid sheath pressure and deep breathing. Clerc and Bascourret report an increase in the auricular rate and a decrease in the ventricular rate in a patient with flutter after eyeball pressure; this, of course, was only temporary.

The etiology of this tachycardia is not known. That is, there is no definite reason why a patient with heart disease should suddenly develop a circus movement, either flutter or fibrillation. It is a known fact that both conditions may occur in normal hearts but usually they are found in hearts whose myocardium has been damaged. I have seen a patient with rheumatic heart disease suddenly develop auricular flutter after an attack of gastro-enteritis.

Diagnosis is made practically in every case by resort to the electrocardiograph. Suggestive evidence may be had if the fact that the tachycardia if influenced by respiration or vagal pressure reverts at once to the rapid rate when such influences are removed. This is only relative and final confirmation rests on the tracing.

Treatment is not always satisfactory. If the myocardium is particularly poor, the flutter is very apt to terminate fatally. The usual method of treatment consists in thorough digitalization until the flutter changes to fibrillation. At this point the digitalis is withdrawn and normal sinus rhythm will return. Frequently this will not occur and quinidin sulphate, because of its action on circus movements, may be employed. Use of quinidin is not without some danger. By decreasing the refractory period in the A-V node it may permit circus impulses to be followed by ventricular contractions, or if used in large doses may inaugurate ventricular fibrillation.

Auricular fibrillation is the next form of tachycardia associated with circus movements to be discussed. This tachycardia is probably the most important of all to the physician

because it is the one that most frequently occurs. The circus movement in the auricle is much faster than in the previous condition, ranging usually between 400 and 550 per minute. There is a block present to most of these impulses at the A-V node though there is no such definite ratio as in flutter. The result is a total arrhythmia with a ventricular rate depending on the degree of block present. Usually, too, these ventricular beats are of unequal strength; therefore, not all get through to the wrist. It is very common to get a comparatively slow rate at the pulse and a much more rapid rate on cardiac auscultation. That is why, in this arrhythmia particularly, reliance should be placed on the ventricular rate and not on the pulse rate in judging results of treatment. Rarely the ventricular rhythm may be regular. This was observed by R. Levy in 4 cases out of 227 fibrillators. He thought it was due to complete A-V dissociation or to partial block existing during periods of ventricular regularity.

Auricular fibrillation is most often seen in individuals whose heart muscle has been damaged by disease. It occurs in hearts the seat of postrheumatic or of arteriosclerotic changes. Less often it is seen in luetic hearts. Hyperthyroidism is frequently the cause of this form of tachycardia. At times transient or paroxysmal auricular fibrillation occurs in otherwise normal hearts. Felberbaum and Finesilver have called attention to the rôle focal infections may play in the causation of this transient type, quoting cases that were followed by permanent normal sinus rhythm after treatment of such conditions as infected tonsils, chronic appendicitis, and chronic gall-bladder disease; I saw 1 such case that followed a gastric upset.

The clinical diagnosis of auricular fibrillation is, as a rule, not difficult. There is found a total arrhythmia. The ventricular rate is usually rapid, irregular, and presents more beats to the minute than does the pulse rate. Those cases occurring in hearts damaged by rheumatism are usually rapid. Often in arteriosclerotic hearts the ventricular rate may range between 60 and 80, though of course the auricles are in state of rapid circus motion. When there is a total arrhythmia, this in a slow heart may confuse the physician and lead to an incorrect diagnosis of multiple premature contractions. In those cases, of course, the electrocardiograph will be required to differentiate the abnormal mechanism.

Treatment of auricular fibrillation may be divided into efforts to restore a ventricular rate compatible with life and comfort, and efforts to restore normal sinus rhythm. To secure the former result rapid digitalization should be attempted, as advocated by Eggleston. The average total quantity necessary to digitalize a patient weighing 150 lb. is 22.5 c.c. (5½ drams) of a tincture having the activity of 100 mg. to the cat unit. If the patient has not had digitalis for 10 days previously, 1/3 to ½ of this amount may be given. In 6 hours, 1/5 to 1/4 of the total quantity may be given. After 6 more hours 1/8 to 1/6 of the total is administered and thereafter 1/10 every 6 hr. until full digitalization has resulted. If the patient has received digitalis previously, a careful examination is made clinically and graphically to determine if there are any signs of digitalis effect, and, depending on the amount of effect present, the dose is curtailed to ¾ to ½ of the total calculated dose. This explanation has been detailed because of a desire to impress the futility of small doses in the urgent treatment of auricular fibrillation. The change within hours (instead of days) in a patient with a fast fibrillation, after rapid digitalization, is often dramatic. The safeguards to be observed, indicating full digitalization, are nausea or vomiting that is not due to passive congestion, fall of the ventricular rate to 60 or less per minute, and occurrence of multiple premature contractions and pulsus bigeminus. As long as auricular fibrillation persists, so long must the patient continue to take digitalis. If its use is discontinued, slowly but surely the cardiac condition will revert to its original serious state. On rare occasions when it is estimated that a wait of 6 or 12 hr. would be fatal to the patient, strophanthin may be administered intravenously in the dose

of gr. 1/120 (0.5 mg.) of the amorphous form. This is always attended with great danger and must be done only when it is certain that delay would be fatal.

While digitalis is the drug of choice in the treatment of auricular fibrillation, it is possible for it to be the cause of fibrillation. Resnik reported 7 colored patients, under digitalis treatment for myocardial failure, developing auricular fibrillation; after withdrawal of the digitalis the arrhythmia reverted to normal rhythm.

Digitalis will not break up the circus movement of fibrillation of the auricle. Quinidin sulphate may. Patients who have had no recent attacks of acute endocarditis, who aside from fibrillation show no especially marked signs of myocardial degeneration, and who show no evidences of congestive failure, may be selected for the attempt to break up the circus movment with quinidin sulphate. It is unwise to attempt this before the patient has been thoroughly digitalized—the digitalis will prevent an increase in the ventricular rate due to quinidin. Three grains of quinidin sulphate are given the first day to test the susceptibility of the patient to cinchona derivatives. If there are no signs of cinchonism, the patient is given the drug every 5 hr. day and night, beginning at 3 gr. and increasing within a few days to 9 gr. every 5 hr. This is usually the maximum dose and will be sufficient to break up the circus movement if it is at all capable of being interrupted. Occasionally the circus movement abruptly ceases after the initial trial dose. It is wise to continue giving the quinidin for a time after normal rhythm has returned.

Quite frequently the auricular fibrillation accompanying the cardiac condition in hyperthyroidsim is converted into normal sinus rhythm by removal of the thyroid.

Prognosis of this tachycardia, *per se,* is favorable provided the ventricular muscle is capable of maintaining an efficient circulation.

Ventricular fibrillation is an arrhythmia characterized by a circus movement in the ventricles. It is a condition almost always fatal and is, therefore, rarely seen except in tracings taken on dying patients. It has been observed as a terminal event in angina pectoris and in digitalis poisoning, by Reid. A. G. Levy has reported occurrence of this fatal arrhythmia following the use of adrenalin during chloroform anesthesia. It has also been found following large doses of quinidin sulphate. There is no successful treatment.

This completes the tachycardias due to circus movement. The remaining forms of tachycardia are the result of the action of an irritable focus in the heart usurping the rôle of the pacemaking sino-auricular node. These forms are included under the head of paroxysmal tachycardia and depending on the site of origin are either auricular, nodal, or ventricular. For practical purposes, only the auricular and ventricular types will be discussed because the nodal form approximates the auricular type.

In auricular paroxysmal tachycardia the mechanism consists of an auricular irritable focus causing regular contractions of the auricle and ventricle at a rate of 140 to 200 per minute. Onset is sudden, the attack persists for a variable length of time—several seconds to several days—and terminates suddenly. The patient usually has some auricular premature contractions, and when they follow each other in rapid succession we have the picture described.

The etiology of this condition is not always evident. Smoking, the use of alcohol, menstruation, focal infections, and emotions, have all been proved responsible at times. Graber has reported a case of Hodgkin's disease that was associated with attacks of auricular paroxysmal tachycardia. At autopsy the vagus nerves were found badly damaged by pressure of mediastinal lymph glands. This is unusual for, commonly, there is no evident pathology. This form of tachycardia may occur in perfectly normal hearts. Very often it is seen in hearts that have been the seat of postrheumatic changes. This tachycardia and other forms of arrhythmia have been produced by Lutembacher, in rabbits,

by the intravenous injection of diphtheria toxin.

Treatment of the attack consists in attempts to stimulate the vagus so that the heart may be slowed. This is done by carotid sheath pressure on one or both sides for periods of 15 to 20 seconds repeated frequently. The same result may be obtained by pressure on the eyeballs. A change of posture, the drinking of cold water, the simultaneous effect of vomiting plus eyeball pressure, or holding the breath, may terminate an attack. In between attacks, attempts to remove the cause—tobacco or focal infection—and the use of quinidin sulphate gr. 3 t.i.d., may act as preventives.

The prognosis is usually good.

Ventricular paroxysmal tachycardia is a serious condition that occurs always in diseased hearts. The mechanism here is similar to that of the auricular type but with the irritable focus in the ventricle. There has been accruing new evidence that tends to prove paroxysmal tachycardia the result of a circus movement, as in flutter and fibrillation. But until this is proved we shall hold to the single focus of stimulation as the true mechanism.

Ventricular paroxysmal tachycardia occurs frequently in patients who have coronary occlusion with myocardial infarct. The presence of tachycardia in a patient complaining of sever cardiac pain—tachycardia for the most part regular, but exhibiting short periods of irregularity—is very suggestive of paroxysmal tachycardia of ventricular origin and warrants a serious prognosis.

Treatment is not very satisfactory. Quinidin sulphate is being used with occasional good results. Levine and Stevens report a case of ventricular paroxysmal tachycardia in a patient with coronary thrombosis in which the giving of quinidin was actually lifesaving.

This paper has been presented because of a definite need. It shows the desirability of greater effort in differentiation of the tachycardias. The clinical diagnosis has been stressed. The technical differentiation by means of the electrocardiogram has purposely been omitted but this omission is not to be construed as due to its unimportance. A tracing should always be made to corroborate the clinical diagnosis. Often it is the only way to arrive at the correct diagnosis. It should be repeated frequently in order to maintain control over medication.

DISCUSSION

Dr. Harvey M. Ewing (Newark): It is very gratifying to see an increasing number of men interested in heart disease, and I am very glad to see Dr. Levin here this afternoon to read a paper on heart disease. He has given a very comprehensive outline of a diffieult physical sign. This physical sign of tachycardia is an extremely important one, and in general it presents a great deal of difficulty, both to the specialist and to the general practitioner. Tachycardia can be due to such a great variety of causes that nothing short of a very complete history and physical examination, and usually recourse to laboratory procedures, will enable one to make a satisfactory diagnosis as to the cause of this disorder. It can never be safely ignored.

Those cases that are due to focal infeetions require the most painstaking search for the site of the infection. I am impressed by the importance of the necessary nasal sinuses as foci of infection which very frequently show little evidence of activity and often fail to impress a considerable proportion of nose and throat speeialists sufficiently to induce them to undertake treatment. I am sure that the nose and throat men as a whole do not appreciate the seriousness of apparently mild sinus infections. I am also sure it is a very common condition, even among comparatively young children, and I am also sure that I have seen recurrent endoeardial infection from an infected sinus that had eseaped attention.

Tachycardia was one of the most troublesome problems met with in examination of troops in the World War and was one of the chief symptoms of neurocirculatory asthenia. This condition oecurs frequently in civil practice just as it did among those men in the army. It is something that has to be considered as a very definite diagnostie possibility in every case of tachycardia. It is very frequent in women. In those cases it must be differentiated from hypothyroidism. Hypothyroidism is a very important possibility in differential diagnosis, both in the tachycardia of sinus origin and in the tachycardias due to surface movements. Dr. Levin has defined them, including flutter and auricular fibrillation.

Lahey has demonstrated the safety, indeed the necessity, of operating upon these cases, even in the presence of persistent congestive heart failure to some degree. In a very large percentage of eases this eures the fibrillation which otherwise is impossible to successfully treat. I am not impressed by the danger of auricular fibrillation, which has been stressed, not so mueh by Dr. Levin, but by a great many other men. In the younger group of cases in which it is associated with mitral disease, I think it is more serious than in the older group without valvular disease. My impression is that in this younger group the important thing is the myocardial disease that underlies the fibrillation. In the older patients, in whom the myocardial disease is less acute, where it is of degenerative character, fibrillation, I think I am safe in saying, in most cases does

not prove to be any great handicap. Many of them fibrillate for years, for the rest of their lives, in fact, and are perfectly comfortable. For this reason, and because of a very definite danger attached to its use, I have refrained almost entirely from the use of quinidin as an agent for restoring normal rhythm.

Dr. H. I. Goldstein (Camden): I think we might emphasize the importance of tachycardia occurring in early tuberculosis, even before cough, blood spitting or other evidence. We have often met with young folks who were developing tuberculosis and haven't yet given us sufficient reason to make a chest diagnosis but already show an increasing pulse rate.

I want at this time, also, to put on record an interesting case of paroxysmal ventricular tachycardia we have had under our care at the Philadelphia General Hospital for a number of months, a man about 68 or 70 who showed marked improvement under digitalis and calcium therapy. When we went off duty in April, the man was still alive and doing pretty well.

Dr. Mancusi-Ungaro (Newark): There are some forms of tachycardia in which the nervous symptoms almost completely obscure the original condition. In middle-aged patients, vertigo or loss of consciousness may be the only complaint. They may or may not be aware of the increased heart rate during the attack, but on questioning they will remember it or admit it. Rarer forms are characterized by syncope, temporary blindness or epileptiform seizures. I remember seeing a boy during his third attack of what we thought was epilepsy. He was not frothing at the mouth, nor was he biting his tongue, and felt prefectly all right when he came out of the attack. When questioned he stated that very often he had attacks of tachycardia, and that his convulsions had always followed an especially severe one. We do not know if these symptoms are due to cerebral anemia induced by tachycardia, or if they are due to some substance circulating in the blood and acting on the medullary centers, but it is well to remember that they occur sometimes in tachycardias.

Now, a word of warning as to treatment of tachycardias of the circus movement type. Nothing has been more gratifying in modern therapy than complete digitalization in these conditions, but we should always keep in mind that digitalis poisoning can produce complete auriculoventricular dissociation and ventricular fibrillation. It has been claimed that many of the ventricular tachycardias now on record were actually cases of digitalis poisoning. We can readily imagine how easy it would be to mistake the rapid regular action of an over-digitalized heart for auricular flutter, and cause disaster by giving more digitalis. Of course, this would be impossible if the digitalis treatment was controlled by graphic methods.

A few words now about prevention of recurrence of paroxysmal tachycardias. Quinidin has been used with more or less success, and as for digitalis there are as many opinions as there are workers.

Authorities like Cohn and Sailer have absolutely denied any value to it but, on the other hand, Levine, Blotner and many others have reported many cases in which it was used with great success. Pardee told me personally that he thinks digitalis a very useful drug in obstinate cases. All of them insist on complete and continuous digitalization.

Dr. Louis Levin (Trenton): Neurocirculatory asthenia, which I did not mention, is frequently associated with tachycardia. I was glad to hear Dr. Ewing mention the usual nonharmful condition of fibrillation. As he said, we often observe patients for many years who apparently are very little incapacitated by auricular fibrillation. The use of quinidin, as I pointed out, should be limited to those in whom the fibrillation is recent, who are not suffering acute endocarditis, and whose general condition is good; it should not be used indiscriminately.

CERTAIN RELATIONSHIPS OF GASTRIC HEMORRHAGE AND GASTROSTAXIS

Drs. C. A. Pons, B. M. Meine and V. A. Blenkle

Monmouth Memorial Hospital, Long Branch, New Jersey

(Read before the Annual Meeting of the New Jersey State Medical Society at Atlantic City, June 8, 1928)

With recent advances in surgery, roentgenology and laboratory diagnosis, severe gastric hemorrhage discloses many interesting phases, and affords excellent opportunities for cooperation of these various departments. Unfortunately, this condition often presents such alarming symptoms that surgical interference is undertaken before a diagnosis is definitely established. There are instances, however, in which operation shows no definite gross pathology, and this renders important the recognition and understanding of such a possibility. It is for this reason that we focus attention upon this subject in the present communication.

One of the most important symptoms of gastric hemorrhage is hematemesis, but this symptom may accompany other conditions; the table presented below will bring out this fact in detail.

Hematemesis may be due to: (1) Lesions of the esophagus; (a) varicosities; (b) neoplasms, benign and malignant; (c) foreign bodies (d) ulcer, benign (peptic) and malignant. (2) Definite intraäbdominal conditions; (a) ulcer, peptic and duodenal; (b) neoplasm, benign and malignant; (c) foreign

bodies; (d) gastritis; (e) varices; (f) aneurysm, miliary of the stomach or extragastric rupturing into the stomach; (g) cirrhosis and other liver and gall-tract pathology; (h) splenomegaly. (3) Blood dyscrasias; (a) scurvy and other metabolic diseases; (b) hemophilia; (c) purpura; (d) anemia; (e) leukemia. (4) Hematemesis without gross intraäbdominal pathology; (a) mucosal erosions; (b) gastrostaxis.

For differential diagnosis a careful history is essential. Symptoms and facts pointing to dietary indiscretions, alcoholism, syphilis or tuberculosis furnish valuable information. The prevailing impression that bleeding ulcers are accompanied by the classical symptoms of ulcer is not always correct. For instance, ulcers of recent origin, which, incidentally, are often without symptoms, are characterized by a tendency to bleed, while old ulcers rarely produce profuse severe hemorrhage. Physical examination may suggest, among other things, cirrhosis, splenomegaly, aneurysm, or tumor. Petechia may indicate purpura. Lesions of the respiratory tract explain the origin of some hemorrhages. X-ray studies, with accurate interpretation, are of great value, but one must determine with precision when the patient's condition will best allow this valuable procedure, since instances are recorded in which perforation followed a barium meal. Andresen defers x-ray studies until 2 or 3 weeks after the cessation of a gross hematemesis. A careful blood count, repeated at frequent intervals, is of diagnostic and prognostic value. The coagulation and bleeding time, clot retractility, and enumeration of blood platelets are to be considered routine procedures.

The foregoing tests are often logically supplemented by blood cultures, blood chemistry, fragility test, Van den Bergh and icteric index tests. Examination of stools and vomitus needs to be emphasized because of its obvious importance. A table has been prepared to show the value of the coagulation time, bleeding time and platelet count in the differentiation of clinical entities.

Disease	Coagulation	Bleeding	Platelets
(1) Hemophilia	Greatly prolonged	Normal	Normal
(2) Purpura hemorrhagica	Normal	Greatly prolonged	Greatly decreased
(3) Secondary Purpura.			
(a) Jaundice	Prolonged	Normal	Normal
(b) Scurvy	Normal	Normal	Normal
(c) Simplex	Normal	Normal	Normal

Esophagoscopy and gastroscopy are of great value in establishing a definite diagnosis; and the method permits obtaining biopsy material for histologic study. As Dr. Chevalier Jackson states, the cardinal rule in hematemesis with negative Roentgen-ray findings should be: "Follow the blood to its source by objective methods."

Gastrostaxis

Gastrostaxis may be defined as hemorrhage without definite histologic pathology. Aschoff, using the term "parenchymatous hemorrhage", describes it as a fatal hemorrhage. Andresen calls it a mucosal hemorrhage. Bevan believes that mucosal erosions of the stomach cause severe hemorrhage and by themselves offer an adequate explanation for death. According to French, the 3 most common causes of severe and often fatal hemorrhage from the stomach are gastrostaxis, gastric ulcer, and cirrhosis of the liver. The statement that massive gastric hemorrhage may occur without definite lesions, as in gastrostaxis, is well supported by Aschoff.

Hemorrhage in general may be classified as of 2 types; hemorrhage by rhexis, where there is a definite break in the continuity of the blood-vessel wall; or hemorrhage by diapedesis, where the bleeding occurs through an intact vessel wall. The mechanism of hemorrhage by rhexis is obvious, while that by diapedesis is not entirely clear.

Among the causative factors of hemorrhage by diapedesis may be classed: vasomotor disturbances, changes in blood pressure, disease

of the blood-vessels, toxic and infectious agents and other factors entering into "hemorrhagic" diathesis. Tidy states that "the essential manifestation of hemorrhagic diatheses, in the escape of blood through the walls, must lie initially in some abnormality either of the blood or of the vessel wall". He directs attention to the platelets and says that they have been generally accepted as having some action in preventing capillary hemorrhage. Duke ascribes the action of the platelets to their property of adhering rapidly and in masses to any point in the vessel wall at which the endothelium is injured or unduly permeable. He therefore places the initial lesion in the wall. Frank believes that the platelets are primarily concerned with coagulation, and that a defective clot is frequently due to a decrease in platelets.

Chemical agents must also be considered as associated with hemorrhage. Flexner showed that the toxic products of burns may cause hemorrhage by injury to the capillary wall and embolism. Venom from rattlesnakes and certain other serpents contains a cytotoxin known as "hemorrhagin" which by its solvent action upon the capillary endothelium, causes extravasation of blood. According to Wells, who called the chemical agent "endotheliotoxin", it acts as a solvent of the intercellular cement substance. He also believes that hemorrhages occurring in cachectic patients are caused rather by the presence of certain abnormal chemical constituents in the blood that injure the vessel wall, than by a simple lack of nutrition. Arnold believes that hemorrhages following reëstablishment of circulation after occlusion are due to asphyxial changes caused by collodial swelling of the endothelial cells.

Marchand employs the term *diacresis* when there is an increased permeability of the vessels due to an increase in the size of the spaces between the endothelial cells. He believes this to be the case in vasomotor disturbance, and an important factor in pancreatic apoplexy in the so-called idiopathic renal hemorrhages and in cerebral apoplexy.

According to Castex, Muller's sympathetic vasomotor center in the intermedio-lateral tract of the medulla has a vasotropic function and is intimately associated with functional hemorrhage. Professor Beckwith Whitehouse designates all uterine hemorrhages, independent of the menstrual cycle, as metrostaxis, which he thinks is in many respects comparable to gastrostaxis. He claims pathologists and gynecologists frequently interpret abnormal appearances of the endometrium as the cause rather than the result of endometrial hemorrhage. In his opinion, the problem of metrostaxis will not be understood until we know more about the innervation of the uterus and the autonomic nervous system. It is possible that similar factors are concerned in gastrostaxis. Likewise, we believe that the hemorrhagic erosions observed in the stomach after severe hemorrhage are the result, rather than the cause of the hemorrhage. Goedel thinks that the cause of parenchymatous gastric hemorrhage is to be found in miliary aneurysms of the vessels in the stomach wall.

Treatment

Surgical treatment of hematemesis should be based on the probable pathology or on the causative factors. It has its indications as well as its limitations and contraindications. Balfour believes that operation should never be urged when there has been only 1 hemorrhage from the so-called silent ulcer. Only after medical treatment has failed should it be advised. Perforation, of course, demands immediate intervention.

Medical treatment is based largely on the use of coagulants, supportive measures, and rest, both local and general. As a coagulant, we prefer the use of whole human blood given either intravenously or intramuscularly, to the use of horse serum introduced intravenously, sodium citrate, or calcium chloride. Experience has shown that there is a contraindication to transfusion of blood during the acute attack; the supposed danger based on the slight rise in blood pressure and volume, is more theoretic than actual.

Gordon and Cantarow recommend the use of parathyroid extract, claiming that it consistently increases the available calcium content in the circulating blood. The dosage is 10-15 units every 36 hours until the hemorrhage ceases. Failures were attributed to erosion in large vessels and to marked local tissue changes. They state that it requires 3-4 hours for the drug to act, and caution against over-dosage which may decrease the calcium content of the blood. It is also contraindicated in dyscrasias such as purpura hemorrhagica.

Mills, of Cincinnati, recommends his specified "tissue fibrinogen" given subcutaneously or orally, since intravenous administration is extremely dangerous. He believes this substance to be a protein-cephalin compound found in all cells of the body, and it acts as a coagulant by uniting directly with the blood fibrinogen through the calcium content of the blood, causing rapid fibrin formation. It acts in 15 minutes to an hour but is ineffective in essential thrombopenia, severe jaundice, and severe secondary anemias where the blood is too dilute. Da Costa advocates the use by mouth of sterile fresh animal tissue extracts such as liver, thymus, spleen and kidney from guinea-pigs and other animals. The organs are ground in a mortar with saline solution and then filtered through gauze. This supplies thrombokinase, an important element in the coagulation of blood. Kraemer reports a case in which similar tissue extracts were used effectively as a last resort. We achieved excellent results with this tissue extract in one of our cases after having tried other measures unsuccessfully.

Concerning diet, we believe that absolute rest of the stomach is best. Sometimes a large clot forms in the stomach and must be washed out in order to obtain gastric rest. While it is possible to control hunger contractions it is impossible to control peristalsis induced by food. Fluids can be given by hypodermoclysis and by rectum. Rhefuss believes that ice by mouth induces hyperemia of the stomach, and may thus aggravate hemorrhage.

Case Reports

In order to illustrate some of the concepts discussed in the preceding part of this paper, we have collected several typical cases from our own observation. These cases will be presented in brief and only the more relevant features considered.

Case 1. A white man, aged 54, a laborer, while at work was seized with acute abdominal pain and fainted. After reaching home he vomited large quantities of blood and passed a bloody stool, and then was taken to the hospital. For 4 years he had complained of indigestion and gas, especially after eating coarse food, but sodium bicarbonate and a liquid diet had always given relief. He was also chronically constipated. He presented an extremely anemic and shocked condition, with abdominal tenderness and rigidity to the left of the umbilicus. His teeth were carious. In the hospital he again vomited blood. Hemoglobin 21%; R.B.C. 1,730,00; W.B.C. 9000; Polys, 76%. The urine was negative. Before a transfusion could be done, he died.

Autopsy findings of special interest: Cutaneous, vascular and visceral lesions of a syphilitic nature. Stomach was firmly adherent to the liver and filled with clotted and liquid blood, as were also the intestines. On the lesser curvature, in direct contact with the liver, was an ulcer 5 cm. long by 2.5 cm. deep. Two ruptured, gaping vessels could be distinctly seen in its base. The cause of death was given as hemorrhage from gastric ulcer, and the microscopic sections revealed a gastric ulcer with early carcinomatous degeneration.

Case 2. W. C., male, white, a painter, aged 56, had lost 20 lb. in 3 months. Complained of distress in the lower abdomen, of nausea, vomiting, and hematemesis. He collapsed just before being admitted to the hospital. For the previous several weeks he spat blood profusely, had a poor appetite, tarry stools, persistent cough, but no night sweats. He had "painter's colic" many years previously. Venereal infection was denied.

His teeth were extremely carious. The

right chest showed limited expansion, increased vocal fremitus, dullness, and bronchial breathing over the upper lobe, cavernous breathing over the middle lobe. The left chest and heart were negative. The abdomen was rigid and especially tender over the epigastrium. Hb. 40%; R.B.C., 2,250,000; W.B.C., 21,600; Polys 92%. The sputum and urine were negative. He died 2 hours after admission.

On postmortem examination the stomach was found filled with clotted blood and there was an ulcer with thickly everted edges. This proved on histologic examination to be an adenocarcinoma. The lungs showed calcified tubercles and fibrosis. Findings in this case show the cause of death to have been carcinoma of the stomach.

Case 3. A barber, white, aged 51, was admitted for a fractured femur. The blood count and urine were normal, whereas the blood Wassermann and Kahn tests were 4+. Because of the slow progress of callus formation, and the blood findings, he was treated with neosalvarsan. Each injection was followed by chills, malaise, and a rise in temperature. After the tenth injection the patient bled from the gums and mouth, and profusely from the stomach for a period of 10 days. There were diffuse petechia over his entire body. After he started to bleed, his blood count, which had been normal previously, was: Hb. 60%; R.B.C., 3,080,000; W.B.C., 8900; Polys 78%; Coag. time 4¾ min.; Platelet count 45,000. Neosalvarsan treatment was stopped at once, and 3 weeks later the blood count showed Hb. 60%; R.B.C., 3,500,000; W.B.C., 8200; Polys, 74%; which was practically no change. However, the coagulation time had decreased to 3½ min. and the platelet count increased to 525,000. The patient gradually improved and was discharged after 8 months hospitalization, with good union and a negative Wassermann test. Kraemer reports a similar case in which purpura followed arsphenamin treatment.

Our case is of interest because of the normal clotting time and the transient decrease in platelets. We believe that the explanation that petechia and hemorrhages in these cases are due to injuries of the endothelial cell by arsenic, acting as a chemical poison, is the correct one in this instance.

Case 4. J. D., a white boy of 12, was examined by Dr. Pons at the Misericordia Hospital, of Philadelphia, on the service of Dr. George P. Muller. This boy vomited dark blood; complained of belching and general weakness. The epigastrium was extremely tender and the skin showed a marked pallor with a yellowish tint. Three years previously his spleen had been found enlarged. Shortly after admission he vomited much blood and his stools became tarry. This was stopped by the use of horse serum and by a transfusion. The boy was underdeveloped and presented all signs of a severe anemia. His teeth were widely separated, small and yellow. The epitrochlear glands were enlarged. The spleen was again found enlarged; dullness extending from the eighth intercostal space in the left midaxillary line to 3 fingers' breadth below the costal margin. The liver was not palpaple. A second transfusion was followed by a splenectomy. The late Dr. Allen J. Smith rendered a report of "diffuse syphilis of the spleen". His blood counts are of interest.

Blood Counts	Hb. Pct.	R.B.C.	W.B.C.	Polys. Pct.	Lymphocytes Pct.
On admission	25	1,700,000	12,400	81	17
After 1st Transf. ...	20	1,900,000		81	17
After 2nd Transf. ...	30	2,150,000			
After Splenectomy...	35	1,660,000	14,000	64	26
Before discharge ...	39	2,930,000	18,000	61	38

The blood smears showed anisocytosis, polychromatophilia, normoblasts and microblasts. The blood Wassermann was 4+.

This case is of special interest as hematemesis caused by congenital syphilis of the spleen is rare.

Case 5. A truck driver, aged 24, while at work the day of admission fainted, having vomited about 1 pt. of blood. After entering the hospital he vomited more clotted blood. Except for abdominal cramps immediately after eating "supper" on the previous day, his past history was entirely negative. The physical findings were entirely negative; there was

not even the slightest abdominal rigidity or tenderness. Thromboplastin was given intramuscularly, morphin hypodermically, and an ice bag applied locally. For 5 days nothing was given by mouth. On the sixth day a Sippy diet was instituted. On the eighth day he complained of headache and abdominal distress. On the ninth he had another severe gastric hemorrhage. Transfusion of 300 c.c. whole blood was given. The next day he again vomited quantities of dark blood. Thromboplastin was used intramuscularly and another transfusion of 300 c.c. blood was given. Because he showed no improvement, on the eleventh day an exploratory laparotomy was performed, which revealed nothing but a gastro-intestinal tract filled with clotted blood. The operation was followed by another transfusion of 300 c.c. whole blood, but the patient died on the twelfth day.

The urine examinations were negative. The blood counts were as follows:

	Hb.%	R.B.C.	W.B.C.	Polys.%
On admission	70	3,500,000	11,700	80
Ninth day	31	1,370,000	24,300	81
After first transf.	29	1,100,000	29,000	85
After second transf.	40	1,600,000	14,600	63

Every blood film examined showed normoblasts, myeloblasts, eosinophilic myelocytes, achromia, anisocytosis and granular basophilia. The blood platelet count exceeded the normal.

The important autopsy findings were: large amount of free blood in the gastro-intestinal tract; near the lesser curvature at its midpoint there was a minute erosion, which did not penetrate beyond the mucosa; rugæ of the stomach were not prominent; petechia were not observed. The operative sutures were firm, and here there was no evidence of hemorrhage. We feel justified in making a diagnosis of "gastrostaxis".

Case 6. A boy, white, aged 4, whose past history is irrelevant. The parents stated that on the previous day the child was run over the abdomen by an automobile, but afterward walked home. Two hours after the accident he vomited fresh red blood and partially digested food. On admission was decidedly anemic, had a slight fever, pulse 120, and respiration 30. X-ray plates of the skull were negative, whereas x-ray plates of the chest showed pathology in the middle and upper lobes of the left lung, yet no injury to the ribs. The urine was negative. A provisional diagnosis of "pulmonary hemorrhage" was made.

Blood Count	Hb.%	R.B.C.	W.B.C.	Polys.%
On admission	70	2,700,000	13,800	77
Fifth day	40	2,200,000	8,800	65
Ninth day	35	2,040,000	8,600	66

The appearance of the erythrocytes indicated secondary anemia. We treated the patient for shock, administered thromboplastin and used other available measures to combat hemorrhage. On the third day after the accident he vomited blood once more, and his stools contained blood and mucus. The child was very refractory. On the eleventh day he was discharged as improved.

One year and some months later, he was re-admitted complaining of gastric hemorrhage. During the interval the boy was generally below par. This time the patient revealed an abdominal tenderness, distension, and anemia. Four days later he vomited fresh and old blood, and occult blood was found in the stools. On the ninth day he developed a left otitis media, at which time there was marked edema of the ankles and face, and frequent abdominal cramps, the latter being followed by a bloody stool. His illness was interesting. The temperature ranged between 101-103° F. The pulse was rarely below 110. The blood count was:

	Hb.%	R.B.C.	W.B.C.	Polys.%
On admission	45	3,050,000	9,800	68
Eleventh day	36	1,750,000	13,000	..

Coagulation time was 4 min.; bleeding time 3 min.; blood culture negative; urine negative; Widal test negative; culture of stool for typhoid negative; Wassermann and Kahn tests negative. No blood was found in the stool after the thirty-fourth day.

In addition to the usually accepted treatment he received 2 drams of a watery extract of liver, kidney and spleen of guinea-pig, several times a day (following Da Costa's suggestion) as a source of thrombokinase. He was discharged on the fortieth day.

Four months later, he was re-admitted with an acute exacerbation of a chronic mastoiditis and operated upon. There was a repetition of the gastric hemorrhage, which stopped spontaneously on the fourth day, a day after the operation. No definite diagnosis was made. The boy is apparently well now, 6 months after the mastoid operation, having gained weight and improved in general health.

We wish to express our thanks to Professor Muller, of Philadelphia, and to Drs. Garrison, Magee, and Maher, of the Monmouth Memorial Hospital Staff, for allowing us to report these cases.

SUMMARY

(1) Hematemesis is a symptom accompanying a number of different and unrelated clinical entities.

(2) Attention is called to hemorrhage from the stomach without definite pathology, a condition now designated as gastrostaxis.

(3) Gastrostaxis is more frequently encountered than commonly believed.

(4) Certain methods for both diagnosis and treatment of gastrostaxis have been considered and discussed.

(5) Several typical cases have been reviewed as examples of gastrostaxis.

DISCUSSION

Dr. H. I. Goldstein (Camden): May I ask a question; whether in the 2 unexplained cases of gastric hemorrhage it was set down finally as probably being gastrostaxis; whether the condition of telangiectasia was considered? Some 8 yr. ago I had occasion to report a series of 11 members in one family all having had nosebleed at sometime or other, with telangiectatic lesions of various parts of the body. One of the patients subsequently had a stroke, from which she recovered without hypotension, and I then set it down as a case of hemorrhage telangiectasia with hemorrhage in the brain. One review of the literature, showed some 35 families at that time of that exact type. There were also a number of instances of severe gastric hemorrhages with apparent absence of all pathology, and all the findings were negative.

President Conaway: Dr. Bleukel, will you answer the question?

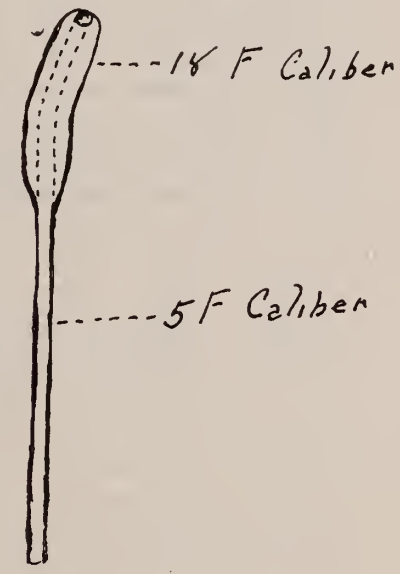
Dr. Bleukel: With your consent, I would like to ask Dr. Pons to answer it, as he is the author of the paper.

Dr. C. A. Pons: We did not find any pathology that might indicate any telangiectasia, but I think it is an important possibility to keep in mind.

A MODIFIED URETERAL CATHETER FOR BLADDER DRAINAGE

GEORGE T. SPENCER, M.D.,
Elizabeth, N. J.

The frequency of post-catheterization (and pre-operative) epididymitis in cases of prostatic retention is probably due as often to acute exacerbation of chronic infection from catheter trauma as to acute new infection introduced by the catheter itself, and any device which lessens catheteric affront to the tissues is worthy of adoption. Decompression of the overdistended bladder by the drop-by-drop method has been shown repeatedly to be



A Modified Ureteral Catheter for Bladder Drainage

safest, and is most easily accomplished by use of an indwelling ureteral catheter for probably 24 hr., after which it may be replaced, if so desired, by a urethral catheter.

The principal danger of a ureteral catheter is injury to the urethral or vesical wall from its small and rather hard tip. To overcome this I have added melted wax to the distal ends of ureteral catheters until tips like the illustration are made. Such a tip may be of whatever size its modeler prefers; it may be given a Coudé curve; it is blunt enough to insure a minimum of trauma either during insertion or while in situ; and its inner di-

ameter is sufficiently small to prevent too rapid bladder decompression.

THE DIAZO TEST IN NEPHRITIS

ROBERT A. KILDUFFE, M.D.,

Director of Laboratories, Atlantic City Hospital
(With the technical assistance of Eleanor G. Springer)

The exact nature of the mechanism concerned in production of the severe and often fatal intoxication which may occur when the urinary output is entirely blocked or quantitatively or qualitatively disturbed over long periods of time is still a matter of investigation and discussion.

Becher[1] has advanced the theory that the symptomatology of uremia might depend upon the toxic action of certain aromatic amino-acids normally formed in the intestinal canal and normally excreted by the functioning kidney but retained by the damaged kidney, and assumed that, if this hypothesis is correct, the blood serum of uremic patients should react with the diazo reagent. The correctness of this assumption he demonstrated experimentally. Previous to Becher's publication, a similar observation had been made independently by Andrewes [2]. Attention having been called to this reaction and its clinical application having been pointed out, the findings thus reported were corroborated by Hewitt[3] and Rabinowitch[4] and, in America, by the work of Blotner and Fitz[5]. The last mentioned observers found the reaction of differential diagnostic value in determining the etiology of comatose states and believe that a positive reaction is ominous of an early fatal termination.

The technic of the test is simple: The application of the familiar diazo reagent of Ehrlich in the proportion of 25 c.c. of solution A to 0.75 c.c. of solution B to the filtrate obtained by adding 2 c.c. of 96% alcohol to 1 c.c. of blood plasma or serum. To 1 c.c. of filtrate is added 0.5 c.c. of alcohol and 0.25 c.c. of freshly prepared diazo reagent, the mixture being then boiled for 30 seconds, when a few drops of 10% sodium hydroxide are added. A positive reaction consists of the rapid development of a pink color, which, it is to be noted, may appear and disappear within a few seconds.

When any new procedure, or a new application of an old procedure is described, it is always of interest to know something of its fallacies, difficulties, and its degree of specificity. With these in mind this reaction was studied in a limited series of cases.

A series of 60 Wassermann sera, a large proportion of which were positive, gave consistently negative results; the same being true of a series taken from the Diabetic Clinic. Among other conditions in which the test was applied with negative results were acute carbon monoxide poisoning, myocarditis, intestinal obstruction, septic arthritis, fractures, salpingitis, tuberculosis, acute cardiac failure, bichloride of mercury poisoning, hydronephrosis, acute appendicitis, and cerebral concussion. Some of these cases were tested numerous times, some several times, and most but once.

The test was applied in nephritis in 19 instances. No correspondence between the degree of nitrogenous retention and the occurrence of a positive diazo reaction was encountered. In 1 case of uremic coma the test was completely negative; being made only once. In 3 ultimately fatal cases of nephritis the reaction was positive. It is of interest to note that the positive reaction may be extremely evanescent so that the procedure must be closely watched throughout.

The simplicity and the clinical value of this reaction invite its further and more general use.

REFERENCES

1. Becher, E.: Deutsch. Arch. f. Klin. Med., 1925: 148:10.

2. Andrewes, C. H.: An Unexplained Diazo Color Reaction in Uremic Sera, Lancet, 1924: 1:590.

3. Hewitt, L. F.: The Diazo Reaction in Uremic Sera, Bio. Chem. Jour., 1925: 19:171.

4. Rabinowitz, I. M.: Observations on the Value of the Diazo Color Reaction in the Differential Diagnosis of Uremia, Canad. M. A. J., 1925: 15:725.

5. Blatner, H., and Fitz, R.: The Diazo Test in Nephritis, Jour. A. M. A., 1927: 88:15.

In Memoriam

ABRAHAM, Charles Franklin, of 85 South Arlington Avenue, East Orange, died January 14 of apoplexy. He was a specialist in children's diseases, was a graduate of Trinity College and also studied in Paris and London. Dr. Abraham was born in Hamilton, Ont., in 1872, and lived in the Oranges for 19 years. He was a member of Ophir Lodge, F. and A. M., of East Orange.

BRUNDAGE, Philip Edwin, of Cresskill, Bergen County, died at the Samaritan Hospital, Philadelphia, December 12, 1928, following an operation for diverticulitis of the sigmoid.

Born in 1877, Dr. Brundage graduated from Princeton University in 1900. He taught at the Stuart School, Sewickley, Penn., 1901-1902. He received his medical degree from Columbia University in 1905, was a resident physician at the Englewood Hospital 1905-1906, and since that time had been connected with this institution as a member of the Medical Board, on the Attending Staff, and since appointment in 1914, had served as Chief Anesthetist. In the civic affairs he served as Borough Clerk and as a member of the Democratic County Committee. He was elected a member of the Bergen County Medical Society in 1907 and served that organization as Secretary, Vice-President and President (1909-1910). He was also a member of the State Medical Society and of the American Medical Association.

During the War, Dr. Brundage was in service from June 14, 1917 to December 11, 1918; in first Officers' Training Camp at Chickamauga Park; Battalion Surgeon, 17th Infantry; Anesthetist at General Hospital No. 6, Fort McPherson, Georgia; and in General Hospital No. 24 at Pittsburg, Penn.

For the past 14 years, Dr. Brundage had given his time to "Anesthesia". He was elected a member of the New York Society of Anesthetists in 1913 and later served as Secretary and Treasurer of that organization. He was also a member of the Eastern Society of Anesthetists. His achievements in anesthesia entitled him to recognition in the speciality in which he was working and to the esteem of his own community. His ability, unfailing cheerfulness and marked personality will have an enduring recollection in the hearts of his many friends and associates.

He is survived by his widow, Emily Evans Brundage, and 3 daughters.

DIX, J. Morgan, of Metuchen, died at his home January 12.

Dr. Dix was a graduate of the University of Pennsylvania and had practiced in this borough for many years. He was 61 years of age. During the war he sold his practice and entered the army medical service, being stationed at Fort Mott.

He is survived by a widow, 2 daughters and a son.

LEWIS, Alfred A., of 12 DeHart Street, Morristown, died at his home, January 1. 1929. With the ebbing of the clamor of a New Year's welcome,

there glided from its earthly abode a fine and spotless spirit in the passing of Dr. Alfred A. Lewis; one of the oldest and most revered active medical practitioners of Morristown, New Jersey. The end came quietly at the age of 83, of which 60 years had been devoted to practice of the profession which he adorned.

Services at the home were conducted by Reverend James M. Howard of the Presbyterian Church in Morristown. Interment was at Basking Ridge, New Jersey, from whence Dr. Lewis had come to Morristown; the pallbearers being Clifford Mills, William A. McMurtie, Henry W. Kice, Leonidas L. Mial, Byron G. Sherman and Marcus A. Curry, all members of the Morris County Medical Society of which the venerable departed had been a long and loyal member and champion. The funeral was largely attended by physicians, local officials and citizens to whom Dr. Lewis had long been a familiar and beloved figure in the community. It is no stroke of hyperbole to record that his genial smile and warmth of handshake will be keenly missed; for contact with Dr. Lewis was even more than that; it was inspiration to higher and better deeds and things.

Loyal to the last to his beloved profession and to those whom he loved to serve, although he had been in failing health for some time and despite advanced age, Dr. Lewis never retired from active practice or the doing for others—one of his many outstanding and endearing characteristics.

Dr. Lewis was born in New York City and was graduated from Rankin Academy, Basking Ridge in 1863, from Pingry's Academy, Elizabeth in 1865, and New University and Medical College in 1870. He came to Morristown from Basking Ridge 50 years ago and had been practicing there for the full half century.

Dr. Lewis was a member of the following organizations: American Medical Association, U. S. A., Medical Association of the Greater City of New York, New York University Alumni, Member and Permanent Delegate of the State Medical Society of New Jersey, ex-president and member of the Tri-County Medical Society, ex-president and member of the Morris County Medical Society, member of the Orange Medical Society of New Jersey, member of the Relief of Widows and Orphans Society of Newark, member of the Morristown Medical Club, member of the New York Obstetrical Society and of the Independent Hose Company No. 1 of Morristown.

Dr. Lewis was at one time City and Jail physician for the Town of Morristown, and was a member of Memorial Hospital Staff.

Surviving are his wife, Mrs. Emma Harter Lewis, one daughter, Mrs. Jeanette Lewis Doty, of Washington, D. C., and a brother, Alonzo Lewis, of Little Washington, N. J.

PYLE, Wellden, a specialist in children's diseases, died January 19 at his home, 16 Academy Street, South Orange, after a week's illness. His age was 33. He was born in Jersey City and attended Syracuse University and the University of Pennsylvania Medical School.

He is survived by a widow, 1 son and 2 daughters.

YOUNGLOVE, John, for more than 40 years a practicing physician in Elizabeth, died at his home, 407 Jefferson Avenue, January 17. He was 97 years old.

Dr. Younglove was a graduate of Washington Medical College, St. Louis, and served as a surgeon with the First New York Rifles in the Civil War.

Surviving are his wife, Mrs. Gertrude Younglove; 3 daughters, Mrs. D. W. Whitehead, of Ocean Grove; Mrs. H. E. Ezerett, of East Orange, and Mrs. W. T. Larned, of New York, and 1 son, Herbert D. Younglove, of Elizabeth.

Dr. Younglove was a member of the New York Academy of Science and a charter member of the New York Homeopathic Society.

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE:
CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:
HENRY O. REIK, M.D., F.A.C.S., Apartment 22 Grammercy Court, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

STATE LEGISLATION

As was anticipated, "we have with us again", at Trenton, those hardy perennials—the Osteopathic, Chiropractic, and Naturopathic licensing Bills—which appear so promptly whenever the General Assembly of New Jersey announces an "open season" for law-making. This year, possibly because the weather has been so mild, they came to the surface early; and, whether as the result of some strange cross-breeding or of one being grafted upon another we know not, the plant comes up as a combination of the characteristics of the previous three.

Assembly Bill No. 25, introduced by Mr. Pierson, of Essex County, is entitled "An Act to regulate the practice of osteopathy, chiropractic and naturopathy," etc. It combines most of the bad features (it has no good ones) of all the "Acts" heretofore presented to favor the three named groups of irregular healers. Purporting to "prevent the indiscriminate use of the methods by the ignorant and immature by prescribing certain high standard qualifications, necessary to obtain licenses to practice either of these drugless arts", the proposed Act really provides that such "standards" shall not be tested by examinations until *after January 1, 1932,* and that during the coming 3 years of intervening time the Board may license, *without examination* anybody it pleases so to honor.

Incidentally, the definition of "osteopathy", in the proposed Act, is made to cover "the practice of obstetrics".

Every member of the Legislature has been apprised by letter of the true character of this Act, and of the menace such a law would be to his constituents and to the general public welfare. That may not, however, be sufficient to prevent its passage through the Assembly. Every member of the Welfare Committee of the Medical Society of New Jersey, and all the Presidents and Secretaries of Component County Medical Societies, have been requested to call upon the Senators and Assemblymen of their respective districts, with a view to securing their opposition to this, or any similar, legislation. We would like to add that it is the duty of every individual member of these societies to exert his personal influence in the same manner; yes, "this means you". It is a duty you owe to the public and to your profession. Discharge it adequately, honestly and immediately.

The newspapers of this morning (January 29) announce that Senator Chandless, of Bergen County, last night introduced "a Bill to regulate the practice of osteopathy". Printed copies of that "Bill" will not be available before next week, but, with both eyes shut, we can make a reasonably accurate guess as to what it contains; and, with both hands tied, in addition, we can guess that the Senator is running true to form.

Collateral Medical Reading

It was our privilege to present last month a review of Dorsey's very interesting book entitled "Why We Behave Like Human Beings", and to commend it very favorably to our readers. It is quite natural, therefore, to consider this month a work with a title of striking contrast.

WHY WE MISBEHAVE

By Samuel D. Schmalhausen

We cannot, we regret to say, give this book the unqualified endorsement accorded to Dorsey's scientific and literary accomplishment. We were intrigued by the title; disappointed in the text. Why go on, then, with the review? Well, the book is not to be utterly condemned, and, if we mistake not again, it is going to have a heavy sale and be widely read by the laity; which is one of the reasons governing selection of books for consideration here.

Misbehavior, as the term is used by Schmalhausen, refers primarily and almost solely to sex conduct. From the very beginning one has to make allowance for the exaggerated form of expression employed. For instance, the dedication is to Freud, Adler and Jung *"who created the new medicine, the new psychology and the new education"*. With all due credit to the gentlemen named, that is, as our English brothers would say, putting it on rather thick. Then, too, the second page of the first chapter contains the following: "One problem and only one troubles the minds of the younger generation: the problem of freedom in matters sexual. How should it be otherwise? Financial self-independence, educational equipment stressing personality fulfillment, erotic enlightenment, the blessed certitude of prevenception, the emergence of informal comradeship between the sexes, and, most significant of all, the shifting of the marital status from puberty to adult-maturity, have all conspired to elevate to a position of the first importance the problem of sex-expression in youth time. Static morality has been repudiated in favor of dynamic experience. Fear yields its sovereignty reluctantly to fun. Virginity is sacrificed to felicity. Virtue, being its own reward, is bartered away in favor of love. Passion's coming of age heralds the dawn of a new orientation in the life of the sexes. We may sum up the quintessence of the sexual revolution by saying that the center of gravity has shifted from procreation to recreation."

The sentiment set forth in the last sentence of the above quoted paragraph is repeated in various forms throughout the book and runs through the whole like the theme in a symphony. Perhaps the author is right in his statements that: "The contemporary cultural situation is subordinating procreation to recreation * * * and what used to be called perversion has become the new normality. * * * The older normality implied procreation as the goal of sex life. The newer normality assumes recreation as the goal. * * * Homosexual attachment achieves increasingly a status of respectability." But, if he is right, and the arguments presented regarding existing conditions be true and be followed to their logical conclusion, then about the only possibilities left for "misbehavior" would consist in commission of rape or failure to take the requisite precautions to prevent conception; everything else goes.

We do agree with the author that "the modern mad quest for stimulation is driving men and women into the arms of abnormality", and, in his demand that it is high time for intelligent people to look facts in the face; his statement that "the most hypocritical people in the world are the Americans" being not too gross an exaggeration. Much of the discourse on sex life, marriage, the influence of an inferiority complex, the alleged disappearance of prostitution, and the value of proper educational procedures in development of childhood, is sound as well as interesting.

We are by no means so sure as the author appears to be that psychosexual inventories and the advice of psychologists will correct all the evils that flesh is heir to. We were interested to find the following paragraph in a review of this same book published in a lay magazine: On one side will be "sympathetic psychologists with a sense of scientific responsibility, and far-seeing sociologists neither blinded by the irrationality of what is, yet doubtful whether throwing stones at their windows is the best way of letting in light on social institutions. The radical view that so long as you discard, you improve; and by unfig-leaving humanity you have Paradise regained, seems to them a wanton spree masquerading as science."

As intimated, we anticipate that you will hear more of this book, and suggest that you familiarize yourselves with its contents.

Medical Economics

HOW THE FAMILY DOCTOR CAN INCREASE HIS USEFULNESS AND HIS INCOME

W. M. Johnson, M.D.,
Winston-Salem, N. C.

(This is the second prize winner among the essays submitted in a contest offered through Southern Medicine and Surgery, as copied from the Tennessee State Medical Journal of February, 1928; the first prize winner was reproduced in our Journal of last month.)

Usefulness and income do not necessarily go hand in hand. Certainly until late years, it has been proverbial that a physician who was a good business man was apt to be a poor doctor, and vice versa. Be that as it may, any doctor who wants to increase his income to the point where it will tax the ingenuity of an expert to salvage it from Uncle Sam's itching fingers, had best retire from the profession and go into a strictly commercial line.

There should be, however, a good living in the practice of medicine, and in no profession is the laborer more truly worthy of his hire than in ours. Much maudlin sentiment has been expended upon the good old doctor who dies leaving behind him a pile of unpaid bills, the memory of a life of good deeds, and a needy family. I hope never to see the general practice of medicine put upon the cold commercial basis of selling real estate or taking out tonsils and appendices, but every doctor owes it to his family to make an honest effort to collect enough from his practice to keep them supplied with the necessities and comforts of life, and to leave behind enough estate or insurance to take care of them after he is gone.

In order to do his best work, the first requisite for the family doctor is to acquire the proper attitude toward his profession and his part in it. For the practice of medicine as a whole, he should feel that there is no nobler calling. Surely Robert Louis Stevenson was never more in earnest than when he wrote after a life-long association with medical men, "The physician is the flower of our civilization." And more recently cynical Heywood Broun has written, "My own notion is that there are more fine men to be found among the doctors than in any of the other professions. The rigors of the job bring out admirable qualities."

There has been a tendency of late to magnify the importance of the specialist and to minimize the general practitioner. The specialists complacently accept the arrangement, and so do many practitioners. But why should they? Does it not require just as much brain power to minister to the whole body as to treat a section of it? And does it not require as much personality to keep a family satisfied as to use the magic word "specialist" as an aid to confidence? It is true that close and continued application to one part of the body brings increased skill therein, but it also tends to give a distorted view of the whole organism. As proof that both views are necessary, let me give a few instances that have recently come under my observation.

One is that of a woman who went to one of the most noted surgeons in New York to get relief from persistent vomiting. After being "studied" for 2 weeks, her gall-bladder and appendix were removed. No relief was obtained and after her return to North Carolina the discovery of a double choked disk—overlooked by the surgeon—gave the clue to a brain tumor, from which she soon died.

Another case was that of a man who had glasses fitted by a competent ophthalmologist for persistent headache, but did not obtain relief until a general practitioner got a 4+ Wassermann on him and gave him appropriate treatment.

Still another patient had an impacted wisdom tooth removed by a dentist, because of headache which later yielded to antiluetic treatment.

These cases might be multiplied, but are given as evidence that there is still and always will be a field for men who are able to view the human body as a whole. I do not mean to belittle the specialist, but rather to magnify the family doctor. As it was in the beginning, is now, and ever shall be, the family physician must be the bulwark of defence against the ills of the average family. Since this is true, why should he delegate himself or allow others to delegate him to the rear ranks of the medical army?

Let the physician read the stimulating addresses of that glorified general practitioner, Sir William Osler, and learn from him anew the lesson of the dignity of the medical profession as a whole, and of the family doctor in particular.

After getting the proper respect for his chosen profession, the next step for the family doctor is to decide not to let his work drive him any more than cannot be helped. At best, he leads a harassing life, albeit the most

useful, perhaps, that can be lived by mortal man. Regular hours for calls, office work, and recreation lessen the burden. It is surprising, if one will only undertake it, to see how seldom he will have to leave the office for a period of 2 consecutive hours set apart for office work. Even if a few emergency calls are turned down, their loss will be more than made up by the increase in office patients who will come when they learn that the doctor may be found in his office at the same time day after day.

Of inestimable value to a busy doctor is a capable office nurse or secretary. It is surprising how quick a bright high school graduate can be trained to greet patients, answer the telephone, make appointments, keep books, send out bills, drape female patients for examination, and do such routine laboratory work as urinalyses, sputum examinations, and blood counts. And if in addition she knows stenography and typewriting she is indeed a treasure.

It goes without saying that no dcotor can be most useful, though candor compels me to admit that he may become rich, who does not keep up with the progress of medicine. To quote Heywood Broun again, "Certainly there is no profession in which the change of thought is more apparent from day to day. A clergyman could sleep for 20 years and come back to his pulpit and nobody in the congregation would find him any less adequate in his job than before he went away. I think a lawyer might still get by even after so long a slumber, and I'm sure an editor could. But where would a doctor be if he was ignorant of developments in his profession for even as short a time as 5 years?"

In order to keep up with medical progress, let us apply to ourselves Bacon's famous saying: "Reading maketh a full man, conference a ready man, writing an exact man." It is absolutely necessary to read a few good medical journals. Most of their articles are summarized at the end, and this gives a clue to their value. With many, this summary is all that one needs to read. Others will bear reading carefully, and once in a great while one will bear repeated readings. The book salesman is a frequent reminder of current medical publications. My advice is to give him a hearing, but not to buy too many books. To quote Bacon again: "Some books are to be tasted, others to be swallowed, and some chewed and digested." For my part, I prefer monographs to systems of medicine, which are usually too bulky and cumbersome for ready reference, besides being so long in gestation that when issued many of their articles are behind current opinion.

One plea I would like to make to my medical brethren is that they do not confine their reading to medical subjects alone, but devote at least half an hour daily to reading something absolutely foreign to their work. If this be done just before retiring, it will help to invite slumber to one's pillow.

As to conference, it may be obtained in several ways. Every doctor should attend all medical societies possible, and at least once every year or two take off from 1 to 4 weeks to browse around medical centers. Another valuable aid to growth in medical lore is to talk over as many puzzling cases as possible with colleagues. It is surprising to find how many valuable tips can be picked up in this way, even where there is no formal consultation.

The third part of Bacon's observation is absolutely true, as any man who has ever really "worked up" a paper upon any subject can testify. It is surprising how much clearer one's knowledge of a subject becomes after an honest effort is made to put it into written words that are easily understood by others. Any one who will try writing at least 1 paper a year will never regret it. And I believe that in lecturing to a class of nurses, any doctor will learn more than he will teach.

Another idea I have found valuable in my own case is semi-specialization or, perhaps better, concentration. The most versatile medical man living will not now attempt to practice all the branches of the healing art. No matter how ambitious, he cannot carry such a load. My advice to the general practitioner is gradually to eliminate one special branch after another until he is doing what he likes best. Even in a small town, where there are few or no out-and-out specialists, the doctors will find it mutually advantageous for each to do the work he likes best, and let his colleagues have what he discards. Because of the drastic reduction in the number of medical schools, the field of medicine is the least crowded of all the professions, and will probably be so for the rest of our lives, hence there need be no cut-throat competition nor heartburning jealousies among us. Let every doctor learn to think of other doctors, not as competitors but as co-workers, and learn to be what the Germans term most aptly "collegial". When we get to the point where we can take Sir Thomas Browne's advice to "Let age, not envy, draw wrinkles on thy cheeks", we shall be better doctors as well as better men, our usefulness will grow, our

income of happiness and satisfaction—and I verily believe of money, as well—will be greatly increased.

The usefulness of a doctor should not stop with his practice. He owes it to his community to be a well-rounded citizen. I am not suggesting that he enter politics, but he should at least use his influence, which is greater than he realizes, upon the right side of every public question. In the much-maligned luncheon club he can help and be helped, for Samuel Johnson would consider the average doctor a "clubable" man. Although he may not be a regular attendant at his church, he can at least show some interest.

His family, too, have some claim upon him, but they must learn to come second to his work. The doctor may truly say to his wife,

"I could no love thee, dear, so much,
Loved I not honor more,"

for his honor is dependent upon the successful prosecution of his work. He can, however, share his holidays with them, go for motor trips on Sunday afternoons and occasional week-ends, and take his wife to medical meeting or to spend a week or two in a medical center, which is apt to be also a theatrical center.

If the average doctor whose practice is pretty well established will take a month away from his work every year—not necessarily in one vacation, but in one solid fortnight of real rest, and several shorter periods devoted to medical meetings, postgraduate work, or week-end visits to relatives, I verily believe he will live longer, do better work, and enjoy his work more. And if one afternoon a week is set apart for recreation, it will not take one's regular patients long to learn and respect this custom.

What has been written so far has been devoted mainly to the increase of usefulness rather than of income. With increased usefulness, however, which means increased opportunity for service, if any kind of business method is used, the income is bound to increase also. To a doctor with a reputation established for doing careful, honest work, for keeping abreast with the times, and with confidence in his own ability, maintained by the knowledge that he is "up" with modern medicine as far as possible, patients will come and send others. Then his fees can be increased in proportion with the growth of reputation and ability. With a competent office secretary to keep books and send out statements promptly, there is every reason why the family doctor should reap the financial rewards due him as well as the sweeter but more intangible ones of the gratitude and affection of his patients.

The proper investment of his surplus is a problem. It is almost axiomatic that the best way to accumulate property is to go into debt for something of value, and then pay out as fast as possible. With a definite obligation to be met, there is far less temptation to be extravagant.

For one, I have neither talent nor inclination to follow the changing fortunes of the stock market nor the rise and fall of real estate values. Whenever I have attempted a small fling into such realms, I have found that my professional acumen has been lessend for the time being. I believe that the solution of the problem is to find a friend who does know something about investments and trust to him for advice. It is not hard to find a reliable realtor who will advise honestly about desirable real estate, and most of us know a bank official who can be trusted to give good counsel about the purchase of stocks and bonds. The "living trusts" offered by trust companies offer a safe investment without worry. It seems to me far better and less nerve-racking to depend upon some one who should know about investments than to add to the burden of practice the responsibility of choosing one's own. When a definite investment is paid for every year, it is gratifying to see an estate grow steadily, even if not with mushroom rapidity.

First, though, I believe that the most important investment for the physician is enough life insurance to maintain an adequate income for his family in case an active streptococcus should get into his blood stream, or his automobile attempt to play airplane.

Medical Ethics

IS THE PHYSICIAN WORTHY OF HIS HIRE?

John Hammond Bradshaw, M. D.,
Orange, N. J.

The above title was taken from an article by Cleon C. Mason, M.D., appearing in the December, 1928, number of the North American Review. The busy doctor seldom finds in one of the lay journals such an alluring and amusing paper. Here we are told that after spending over $25,000 on his education, and over a dozen years out of his life

in getting it, if he is lucky he can have about 30 years more of life (his average allotment) to do charity work in some institution that pays for everything else but the greatest essential and asset that it possesses—the doctor.

"We doctors are expected to be above such a sordid thing as money. Our being notoriously 'poor business men' is often the excuse for not paying the doctor his due. Recently I was away on my vacation and during my absence a bill from a plumber came into the office. On the first of the month I had sent the plumber a bill for services amounting to less than half of what I owed him. Ten days later while I was still away came a curt note reminding me that I continued to owe the plumber that amount. On my return I asked the office girl to copy the note word for word and send it to the plumber reminding him that my own statement had not been paid and at the same time inclosing my check for his account. What happened? The plumber simply roared into my office and the air was blue for a few minutes."

Have not many of us had similar experiences?

"When the Johns Hopkins Hospital Board passed a ruling that no patient should be charged more than $1000 for a major operation, the outstanding internist of America, if not of the whole world, thereupon withdrew from the Johns Hopkins staff."

Now, wouldn't a few of us like the privilege of holding that doctor's hat?

Can we standardize fees? How much is pneumonia worth? How much should a multimillionaire be charged for an abdominal operation—say for a gunshot wound of the intestines—that positively saves his life? How large a fee would his lawyer charge him for saving even one-half of his fortune? But of course his fortune is worth more to him than his life and he pays a fee of from $50,000 to $100,000 with a smile. Would he smile at his surgeon if presented a bill of such proportions?

"A doctor has only one thing to sell—his time. This is limited. Many doctors die young.

Too often the successful practitioner is not the most competent doctor.

You cannot sell a brand of medical treatment which the public does not like. We of the present generation are having far more difficulty in de-bamboozling the public concerning certain mistakes of our forefathers than those kindly but medically bewildered old gentlemen ever had in bamboozling the people.

Mr. Ford can make remarks on any subject under Heaven and the public will not only quote him but believe him, not because years of patient study have prepared Mr. Ford to speak with authority, but because Mr. Ford has sold enough automobiles to accumulate one billion dollars; *a priori* a billion dollars has more brains than a painstaking student."

It is startling to us hard-working doctors to read that there is a growing opinion that medicine is *"a public utulity!"*

Conclusions

(1) There is too much free medicine.

(2) Too great a proportion of charity funds is eaten up in administration.

(3) The doctor should no longer be a beggar-robber, but a business man.

(4) The tax-payer should carry burthens now carried by over-worked doctors.

(5) Organized charities are not always organized blessings.

(6) The doctors are to blame.

This paper is reviewed not because the present writer believes every word in it, but because it, like a live wire, is capable of doing intentionally much good and accidentally some harm.

Esthetics

THERE ARE STILL A FEW WONDERS

(From the Kalends of Williams and Wilkins Co.)

One of the most appealing and outstanding traits of childhood is that it is the age of wonder. To the normal child even the most commonplace happenings are wonderful—the patter of rain upon the window pane, the deep roll of thunder, the lightning's flash, and the twinkling of the stars. Ever take a small boy to the circus? Ofttimes his wonder, amaze and delight are by far the best part of the show.

Delightful, however, as is the wonder of childhood, is it not more beautiful to see a man in his prime, or old age, who has retained the freshness of childhood and to whom the world and all it contains is as wonderful and interesting as it was to him as a boy? 'Tis sad, but true, that nearly all of us lose our child heart, and when that is lost the larger

and purer part of life's charm has vanished. How many of us can say, truthfully,

"My heart leaps up when I behold
A rainbow in the sky;
So was it when my life began,
So is it now I am a man,
So be it when I shall grow old."

Regardless of our worldly-wise sophistication, the world remains as wonderful as ever. Its mountains, its rivers, its trees and its flowers, not to mention its teeming animal life, are still wonderful—*all* amazingly, bewitchingly wonderful. Someone or other has said that there are 3 things which ought to fill a sane man with awe, provided he has a spark of reverence left, viz., the sky, the soul, and the sod.

Consider the stellar system with its stars with diameters of 400,000,000 miles. Astronomy has shown us the wonders of the system, but who can explain its workings.

Who can plumb the depth of a human soul? Psychology has much yet to learn, and far more to explain; while psychic research, in so far as it relates to seemingly supernatural manifestations, is still in its swaddling clothes.

"Dust to dust" is still true and its wonder yet remains. Nations and races rise, fall, and decay—return to the dust from whence they came—and others take their place. Explain it, if you can.

Yes, this old world of ours still contains many wonderful things, and happy is the man who is wise enough to contemplate them with reverence and awe.

In Lighter Vein

A young authoress declares that the notion of writing a novel occurred to her quite suddenly as she was crossing Holland Park Avenue. The possibility that this might happen to any one adds greatly to the perils of the streets.—Punch.

Interfering Static

"Bobby, please stop that noise—I'm trying to gargle."—Life.

Hot Air

"How is you room heated?"

"By hollering down and cussing at the janitor."—Drexerd.

New Traffic Jam

"Is your daughter popular?"

"Popular! Why, I can't park within 3 blocks of my house."—Iowa Frivol.

Bunch of Good Wishes

Another serious social problem is what to send the florist's daughter when she is ill.—Ohio State Journal.

Observations from the Lighthouse

GALL-BLADDER DISEASE

At the Annual Meeting of the Massachusetts State Medical Society, in October last, an extremely interesting symposium was presented by a group of surgeons and physicians of national reputation. Papers of such excellence seldom appear in groups of 5, and we deem it worth while to present a rather full résumé of this symposium.

SURGERY OF THE GALL-BLADDER

Surgery of the gall-bladder, says Erdmann (New England J. Med., 199:703, Oct. 11, 1928), should be considered under 2 types of operation, cholecystostomy and cholecystectomy. Cholecystostomy is done only (a) when there is a definite use of the gall-bladder as a means of making a by-way; or (b) as a means of drainage, as in pancreatitis associated with edema that masks or makes impossible diagnosis of the immediate obstruction. The objection on the part of Erdmann, and that of the greater number of operators, to doing cholecystostomy for the nonmalignant obstruction and inflamed gall-bladder is that the tour of illness is longer than in a cholecystectomy, the morbidity is prone to be more positive and more prolonged. Recurrence of infection is positive in a fair percentage of all patients of cholecystostomy cases.

This type of operation is done by the Khader method of suturing a tube in any hollow viscus. Preliminary to suturing the tube into the opening made in the gall-bladder, Erdmann measures the length of the cavity by introducing the tube to the bottom of the gall-bladder, then withdrawing it 1/3 to ½ the length introduced. The edge of the cut gall-bladder is then sewed with one stitch through the tube, closing is finished by a purse-string suture, ¼ to ½ in. below the opening, and the sewed-in tube is plunged downward, carrying the fundus inward. As the fundus disappears, the purse-string suture is drawn and tied. The gall-bladder should never be sewed to the parietal peritoneum, as this procedure assists in producing some of the dragging that was a postoperative complaint of patients some years ago.

Persistent sinus is a relatively frequent sequel to cholecystostomy and demands a second operation, the dread of which has caused patients to suffer untold agony from months to years. In Erdmann's experience, one stone or more is invariably found to be the cause of these sinus cases. The sinus is not discharging continually, but intermittently; the gall-bladder fills with mucus and bile, thereby producing distress; the closed mouth of the sinus opens, the contents are discharged, with relief to the patient, and this cycle is repeated until surgery gives relief.

Many of the arguments *against* cholecystostomy are, in Erdmann's opinion, strong arguments *for* cholecystectomy. Among these are the use of nonabsorbable suture material in implanting the drain; an operative sinus of commission instead of an incomplete operation; leaving an infected gall-bladder, producing or prolonging morbidity; leaving a useless shell that is subject to further or new infection; formation of sinuses resulting from incomplete operation, i.e., leaving a stone; any or all of these conditions subjecting the patient to many disagreeable symptoms as well

as the likelihood of a second operation which is a greater hazard than the first complete operation would have been. There is also to be considered the fact that, according to available statistics, the mortality from cholecystectomy is almost 0.5% less than that from cholecystostomy, and the period of convalescence in the former operation is much shorter.

In spite of all the foregoing, however, it is admitted that the occasional operator will have best results as to mortality by doing a cholecystostomy. It is therefore to be conceded that each operator should, in the interest of his patient, do that type of operation with which he is most familiar. Cholecystectomy is accompanied by potential risk of injury to the common or hepatic duct; even the hepatic artery, portal vein and vena cava have been injured in this operation, and the cystic artery has been injured or has slipped out of the forceps grasp, producing troublesome hemorrhage before being caught and controlled. Both operations under discussion have been accompanied by injuries to the duodenum, stomach and transverse colon.

Spillage of bile into the operating field is of no serious import, nor is the spillage of pus or infected gall-bladder contents, it being conceded, of course, that the field of operation has been well protected by gauze sponges and carefully wiped or sponged before final closure. Even massive spillage of bile during the first few postoperative days did not preclude recovery in 3 cases cited, proper drains having been introduced.

Erdmann has for some years adopted the practice of closing all cases (even mild infections) except those showing a marked amount of edematous tissue in the gall-bladder sulcus, or a large amount of pus in the field of operation, with or without gangrene. The non-drainage argument does not apply to invasions of the common duct nor to cases with pancreatitis.

Before operating on a patient with jaundice of more than 3 or 4 days duration, a complete blood picture and coagulation time by the capillary method should be ascertained. Should the coagulation time be over 7 minutes, all known methods for reducing this record should be used, the simplest being Walter's method of chloride of lime. If this does not produce results after the third dose, the author then has the patient transfused to the full limit.

According to Erdmann's technic, an ample perpendicular incision is made through the inner and mid-third of the rectus muscle, doing the Bevan extension when necessary. The liver is rotated when possible; use of a Balfour modification of the Garland retractor (in fat persons the third blade is of the Horgan type) will eliminate the hands of 2 assistants and useless side instruments. No sand bag nor elevation is used, nor has it been found necessary to pack the space above the liver even in the most difficult cases. There are no fast rules for removal of the gall-bladder, but Erdmann is accustomed to approach it from the side, first incising with knife or scissors the peritoneum about ½ to ¾ in. from the liver as far up as the fundus and down to the cystic duct. The gall-bladder is rotated on its long axis as the cellular tissue and vessels are incised. This allows free vision of the cystic and common ducts. The cystic is clamped fairly close to the gall-bladder and may or may not include the vessels. Another clamp is placed on the cystic duct, and the duct is then cut between these clamps, the proximal one being allowed to drop into the abdominal cavity; the distal clamp may be used as a retractor while the gall-bladder is dissected free from its bed. Suturing the cystic fissures is done only to prevent oozing. It has not been found necessary to cauterize or carbolize or suture-bury the stump of the cystic duct.

Vascular anomalies are easily treated but duct anomalies require very careful consideration, as ligation of an anomalous cystic duct may be the source of conveyance of bile from the liver through its intrahepatic ducts, while the extrahepatic duct is contracted or cicatricial.

In concluding, after this comparison of the 2 possible procedures, Erdmann says: "I advise cholecystostomy when necessary to conserve the gall-bladder for a by-way in case of distal duct obstruction of neoplastic origin; cholecystectomy, one-stage, because of the rapid convalescence; cholecystectomy because of lesser or equal mortality; cholecystectomy because of lesser morbidity; cholecystectomy because it obviates secondary operations for sinus, retained stone or recurring cholecystitis."

SURGERY OF THE BILE DUCTS

In a series of 837 operations done for biliary tract disease, 158, or 19%, were on the bile ducts, and these form the basis of a study by Lahey (New England J. Med., 199:707, Oct. 11, 1928), who says that the chief lesson learned from this surgical experience is that surgeons must guard against a tendency to be satisfied solely with removal of the gall-bladder and its contained stones in cases of gall-stone colic. No matter how lacking may be the symptoms or visual evidences of stones in the main bile channels, a most painstaking search must be carried out for their possible existence. This does not mean that in every case in which stones are found in the gall-bladder, the common duct should be opened, but it does mean that most careful visualization of the ducts should be made as to size, consistency and thickness, and that the most careful palpation of the ducts (particularly at the lower end of the common duct) must be made to rule out the possibe existence, particularly, of silent common duct stones. It is at the lower end of the common duct that stones are most apt to be overlooked, either at the time of palpation or even when the duct is opened and a search is being made for them. This is due to the fact that the duct here is often surrounded by the head of the thickened pancreas, making palpation difficult, and the duct just above the sphincter of Oddi is prone to sacculate, so that a good sized probe may readily pass by stones and enter into the duodenum, thus leading one to infer that because no obstruction is met with there are no stones present. Should there be the slightest suspicion of common or hepatic duct stones, the ducts should be very thoroughly explored under wide exposure and direct vision as far as possible, and should doubt still remain, the parietal peritoneum beside the duodenum should be cut, the duodenum mobilized by turning it inward, and the retroduodenal portion of the common duct demonstrated and explored.

As a practical point in technic it is urged that T-tubes or catheters which are to be placed in the common duct for drainage should not be inserted into an incision in the duct behind the duodenum, but rather into an incision in the

portion of the duct uncovered by duodenum. This precaution should be taken lest the tube inserted to the retroduodenal portion of the duct and remaining there for some time rest against the lateral wall of the duodenum, and by pressure necrosis occasion a late duodenal fistula. Care must also be excercised in selecting the size of the tube to be employed, making sure that it is considerably smaller than the caliber of the duct, since tight fitting tubes can produce destruction of the duct mucosa and sloughing of the duct itself. T-tubes supplied by dealers have long limbs on either end of the T portion. These should be cut down to the shortest possible transverse ends consistant with making them remain in place within the duct.

Best results have been obtained by permitting T-tubes to remain in the ducts either for a comparatively short time (10 to 12 days) or for quite a long time (2 to 3 months). In eases of merely mechancial blocking of the duct by stone unassociated with infection, or where unsuspected stones are found in the ducts at the time of operation upon the gall-bladder, the T-tube is removed on the tenth to twelfth day, with the result that the external discharge of bile soon ceases and the patients are able to leave the hospital within 3 weeks of the time of operation. In cases presenting marked infection within the ducts, or jaundice associated with fever before operation, or where a reconstruction of the duct has been done about the T-tube for stricture of the duct, the patient is frequently sent home with the T-tube in place and it is allowed to remain for 2 to 3 months. If the T limbs of the tube have been cut short and the tube is new and of good material, there is no danger of disintegration and no difficulty is experienced in its removal.

Strictures of the main bile ducts are by no means rare. They are most common at the juncture of the hepatic and common ducts and usually follow cholecystectomy and operative difficulties. The ideal treatment would be excision of the stricture and end-to-end anastomosis of the ducts. Unfortunately, however, the stricture is, as a rule, so extensive that its excision would leave too great a defect to overcome without undue tension. The next most satisfactory procedure is the implantation of the end of the hepatic or common duct into the duodenum, but this can be done only rarely. A majority of cases have presented incomplete narrowing of the common duct, and have been treated by suture of the incised stricture about a T-tube, which has been left in place for at least 2 months. This procedure has proved most satisfactory.

In 2 cases in which the common and part of the hepatic duct were completely destroyed and all bile was discharged through abdominal fistulas, successful results were obtained by dissection and preservation of the fistulous canal and by implanting and anastomosing the dissected fistula directly into the duodenum converting thus the external into an internal biliary fistula.

The method of repairing complete defects in the main bile ducts by introducing a section of rubber tubing into the open ends of the cut ducts and wrapping with peritoneum or omentum is not to be recommended, judging from reports of cases followed. In such late cases of complete severance of the duct as do not permit of suture of the cut end of the duct to the duodenum, the best procedure is believed to be production of a complete external biliary fistula, and at the end of 3 months or more, preservation of this canal by dissecting it out down to the bed of the liver and implantation of the fistula into the duodenum, stomach or jejunum.

In pre-operative diagnosis of biliary obstruction in the cases under consideration, Courvoisier's Law, thus modified, has been of value: In the presence of painless and progressive jaundice in a patient with clay colored stools, and with a gall-bladder which is so dilated that it is palpable through the abdominal wall, the obstruction is almost with certainty due to malignancy, either of the head of the pancreas or of that portion of the common duct below the point where the cystic duct enters it. In such a case as this, no exploratory operation is necessary or justifiable with any idea that the condition is permanently remediable. Cholecystenterostomy, for the purpose of temporarily overcoming the effects of deep jaundice has, however, permitted many patients to obtain weeks and even moths of comfort and to die much less distressing deaths than those associated with unrelieved obstructive jaundice. When the positive portion of Courvoisier's Law is not present—when, in the presence of painless and progressive jaundice with acholic stools, the gall-bladder is not dilated and not palpable through the abdominal wall—the possibilities of even temporary surgical relief become almost certainly nonexistent.

Jaundice plays a very great part in the mortality assoeiated with lesions of the bile ducts, (1) beeause of the liability of hemorrhage in any patient operated upon while deeply jaundiced, due to delayed coagulation time; and (2) to diminish liver function when the liver cells are incapacitated either by infection or back pressure.

Liability of hemorrhage may be diminished by administration of calcium lactate by mouth and calcium chloride by vein; occasionaly by transfusion. Diminished liver function is probably the most constant single contributing factor to mortality in bile duct operations. In preparing such cases for operation the preliminary administration of glucose salt solution and the employment of a high carbohydrate diet are of value. The undesirable effect of ether is avoided by the use of high spinal anesthesia. The use of ephedrin to prevent a drop in blood pressure, and 2 comparativey new spinal solutions—the light starch, alcohol and novocain solution of Pitkin, and the heavy glucose and novocain solution by means of which the levels of anesthesia may be accurately controlled—with all injections made through the second or third lumbar interspace, has provided a method by which extensive operative procedures may be carried out, even in bad surgical risks.

SEQUELS AND ACCIDENTS OF BILIARY SURGERY

Attempts to relieve remote symptoms by removing a gall-bladder because of adhesions, or because it does not fill and empty according to the rules of the dye test, will not always be followed by relief, but the unsatisfactory results should not be set down as failures in gall-bladder surgery. They should be attributed rather, in the opinion of Judd (New England J. Med., 199:712, Oct. 11, 1928) to surgical procedure without sufficient evidence of disease,

and failure to correlate clinical and pathologic data.

Not infrequently operations on the gall-bladder or ducts are followed by symptoms similar to those for which the operation was performed. There may be 2 or 3 attacks which are very distressing to the patient, but he can usually be assured that the difficulty will not persist. Secondary operations should not be performed in these cases, at least until a sufficient time has elapsed to make sure that the complication will not take care of itself.

Whether hepatitis is a primary lesion is difficult to determine, but there can be no question about the close relationship between the liver and the gall-bladder, so that if one is infected, the other readily becomes so. It does not follow, however, that every time hepatitis occurs it is secondary to infection in the gall-bladder. Removal of the gall-bladder will sometimes be followed by relief of symptoms and sometimes by no change in that respect. Some evidence of hepatitis will be found almost every time the liver is examined in patients being operated upon for inflammatory lesions within the abdomen. Under certain conditions it is undoubtedly caused by an attack of cholecystitis.

In addition to a series of 24 cases previously reviewed, in which secondary operation was performed for persistence of symptoms after cholecystectomy, a new series of 28 is here analyzed. Primary operation was performed in the author's clinic in 9 cases; elsewhere in 19, but according to the best information obtainable, the gall-bladder was definitely diseased in all these patients. Stones were present in 21 cases; 6 were classified as chronic cholecystitis without stones; acute pancreatitis was noted in 3 cases; primary cholecystectomy was performed in 24 cases, and in 2 of these the common bile duct was explored at the same time. Cholestostomy, followed by cholecystectomy, was performed in 4 cases in which the common bile duct was opened but no stones found.

The period since onset of symptoms after cholecystectomy ranged from 10 days to 8 years. Severe colic was the chief complaint in all cases. Jaundice was present in 50%; fever, chills and clay colored stools in 17%. Intervals between primary and secondary operations ranged from 6 weeks to 35 years.

Hepatitis was evident in 32%; enlarged pancreas in 39%; definite cholangeitis in 18%; enlarged lymph nodes along the ducts in 10%; bile duct dilated in nearly all cases, but considerably enlarged in more than 50%. The best results after secondary operation were obtained in those cases in which prolonged drainage was carried out. In these a Deaver T-tube was placed in the hepatic and common ducts and left for at least 3 months, when it was clamped off to determine whether any of the symptoms would recur. If the bile flowed freely into the intestine without return of trouble the tube was removed. In every case drainage of bile to the outside ceased within a few hours after the tube had been removed. The 1 death in the series occurred in a case in which the second operation was performed 6 weeks after the first, and was believed due to acute cholangeitis and acute hepatitis. The remaining 27 patients were definitely benefitted amost immediately after operation, although a small proportion showed a tendency to recurrence. There seems to be little doubt that biliary obstruction was the main cause of the symptoms in some of the cases, and it is probable that inflammation of the pancreas and liver was a factor in some cases; cholangeitis was present in some. There is no assurance that this series of cases should be classified as intermittent biliary obstruction, or should be regarded as sequels of gall-bladder disease. It is very likely that the condition necessitating the secondary operation was present at the time of the first operation and was part of the initial trouble.

Fistulas as a sequel of operation on the biliary tract are of 2 types—mucous and biliary. Delay in operating on a mucous fistula is justifiable if there is any reason to believe that the trouble is subsiding. The fistula may persist for years without becoming more serious. Undoubtedly certain cases of biliary fistula are due to the escape of bile from the cystic duct; others to drainage of bile from the surface of the liver. The condition generally clears up after a few days or weeks. If it persists, or if jaundice and pain develop when the fistula is closed, abstruction of the common bile duct is usually indicated. (This may be due to stone in the duct, tumor or inflammation in the head of the pancreas, tumor at the ampulla, cholangeitis with a tendency to obliterate the lumen of the duct, or injury to the duct at operation. In proceeding to repair a biliary fistula, all of these possibilities must be considered.) If the obstruction is due to a stone, and this is removed, the condition will clear up; if due to a new growth in the pancreas or ampulla, or inflammation in the pancreas, an anastomosis should be made between the gall-bladder and the duodenum, or, in the absence of the gall-bladder, between the bile ducts and the duodenum; if due to stricture or obliteration of the ducts, an anastomosis must be made between the ducts and the duodenum.

RELATION BETWEEN GALL-BLADDER AND PANCREATITIS

The frequency of association of these conditons has been estimated at 20 to 50%, according to Daniel Fiske Jones (New England J. Med., 199:716, Oct. 11, 1928), who presented this phase of the symposium. There are 2 generally accepted theories concerning this relationship: (1) Retrojection of bile into the pancreatic duct, as suggested by Opie and endorsed by Archibald; (2) infection of the pancreas from the gall-bladder through the lymphatics. In the careful examination of cases one finds that the theory of lymphatic infection is not well supported clinically; but, giving each of these theories the most generous interpretation that evidence allows, there are still many cases unexplained by either. Jones says that about 50% of cases of hemorrhagic pancreatitis, similar in all respects to the explainable cases, exhibit no gall-bladder pathology at operation. He believes that there is no evidence to prove that the cases of so-called chronic cholecystitis, in which no gross pathology can be demonstrated, and the cholecterol gall-bladders, have not any causative relationship to acute hemorrhagic pancreatitis, and that if these gall-bladders are to be removed it must be done for some other reason than the prevention and cure of acute pancreatitis. Incidentally, he believes that gall stones should be removed with the gall-bladder when found, if there are no special contraindications.

SOME MEDICAL ASPECTS OF DISEASE OF THE GALL-BLADDER AND BILE PASSAGES

Franklin W. White (New Engand J. Med., 199:719, Oct. 11, 1928) reviewed the physiology, pathology, diagnosis and treatment, in this symposium, from the physician's point of view. Records show that 5 to 10% of all women coming under postmortem examination show gall stones, and no doubt many more have had lesser degrees of gall-bladder disease. The condition is evidently more important in middle life than duodenal ulcer and appendix combined, especially in women, and apparently no important disease in the abdomen has been so often overlooked. Fully half of all cases have no definite local symptoms; only vague abdominal distress, gas, heart-burn or nausea. There are 3 typical groups of cases: (1) those with typical colic; (2) those with moderate local grumbling pain or soreness; (3) those with vague indigestion without local symptoms. The first group includes not more than 20% of the total; the second group about 30%, and the third, most difficult of all to diagnose, probably about 50%. Jaundice is a valuable sign when present but it is noted in less than 10% of all cases. The gall-bladder is palpable in only about 2% of cases and then is due to complications. Courvoisier's law that 80% of enlarged gall-bladders are due to pancreatic cancer is usually confirmed at operation or autopsy, but its value diagnostically is limited by the fact that only about ¼ of such bladders are palpable during life.

The standard methods of testing for bile in the blood are the icteric index and the Van den Bergh test. One of the simpler and best of recent tests is Rosenthal's brom-sulph-phthalein method; the dye, which comes in ampoules, is injected into an arm vein and blood is drawn from a vein of the other arm in half an hour, and the dye retention test is read off the colorimeter. Cholecystography has recently made a great step forward and is now the best laboratory test, with a positive diagnostic accuracy of 95% in patients operated on The Graham test and Lyon's biliary drainage are not very enthusiastically endorsed. "There is a wide gap between the ideal and the actual medical treatment, between what we wish to do and what we are actually able to accomplish. We wish (1) to combat stasis in the gall-bladder and bile passages, (2) to reduce cholesterol, and (3) to lessen infection. The actual treatment usually is the use of a bland diet, weight reduction if needed, regular exercise, low cholesterol (restriction of fatty foods), the use of spring waters or mild salines such as Carlsbad salts, sodium phosphate or sodium salicylate, the use of bile salts and the relief of painful attacks." As to the reduction of infection: "We know the affinity of the streptococcus for the gall-bladder and recognize the importance of removing infection in the tonsils, sinuses, teeth and appendix. There seems to be no way known at present to sterilize the contents of the gall-bladder by the use of drugs. Mercurochrome is excreted in the bile but loses its sterilizing power in passing through the liver."

With reference to selection of cases for medical or surgical treatment, White says: "We always advise the stone cases with definite symptoms to see a surgeon, for the results of operation are excellent. * * * The mere presence of stones is not an indication for operation. * * * Surgery should be based on symptoms. * * * In the chronic gall-bladder with mild symptoms and without stones the indications for operation are less definite and the results less good. * * * The medical man has several duties in gall-bladder cases: (1) To make as good a diagnosis as possible; (2) to send to a surgeon those cases that have stones and symptoms; (3) to give medical treatment to mild, early, uncomplicated and poor-risk cases; (4) to avoid delaying a necessary operation."

Lay Mirror Reflections

The following news clipping from one of the Paterson dailys, date of December 23, 1928, was kindly sent to us by Dr. E. J. Ill, of Newark. We take pleasure in publishing it, and wish that other members would be as watchful, and as considerate, in finding and supplying us with interesting items.

NON-SUIT GRANTED TO LOCAL PHYSICIAN

Judge Porter Declares Dr. Spickers Was Justified in Performing Operation

Coming to the defense of surgeons who may find it necessary to do extra work which they deem necessary in operating on a patient, Judge Porter yesterday afternoon granted a non-suit in the $25,000 suit of Mrs. Lillian F. Conklin, of Paterson, against Dr. William Spickers, also of this city.

"If I go to the doctor's to have my tonsils taken out the doctor has no right to remove my toe nail," Judge Porter said, in commenting on the case. "But if he operates on my toe-nail and finds gangrene under it he has a right to remove the toe."

"If a doctor cuts open a man for appendicitis," he continued, "and finds the seat of the trouble not the appendix, but something else in that region, it is his duty to remove what is causing the trouble."

"The law implies that the contract between the parties in a case like this is for the surgeon to do everything that is necessary for the welfare of the party on whom he is operating. It is preposterous to expect a surgeon who is operating for a certain disease and finds other trouble to wake the person out of the anesthetic and ask his consent to cut the other part out."

"The human race would not be safe under those conditions," he concluded.

"That may be all right from the doctor's point of view," interposed Lawyer John O. Totten, Jr., counsel for Mrs. Conklin, "but the State must think of the public."

"That's the way I'm looking at it," Judge Porter replied, "and I would rather have the Supreme Court reverse my decision than give a contrary opinion."

About 20 prominent physicians and nurses from the northern part of the State were present in the court room and applauded the decision.

Dr. Spickers operated on George B. Conklin on July 21, 1927, and he died 2 days later. The doctor pointed out that the man was 63 years of age, and attributed his death to postopera-

tion pneumonia. Former Senator P. J. McGinnis and Runyon Colie were counsel for the defendant.

A PHYSICIAN'S CREED

(A letter published in the New York Times of December 13, 1928, referring to that paper's "Fund for the Neediest".)

Dr. L. T. P., Jersey City—When first starting out in the medical profession some 49 years ago, I read a remark of Professor Boerhave, surgeon of Vienna, to wit, "the poor are my best patients for God pays their bills" and I have found it to be eminently true in my personal experience. It is not a crime to be poor but a calamity. Every physician with a heart practices this religion all through the year. Personally, I have given several hundred dollars worth of services and a third as much money to those whose necessities demanded it during this year and many other years. I rejoice in it. Am sending you a slight contribution for dear Alice, Case 1, and ask it to be credited in memory of beloved Anna, my wife, who passed on some 8 years ago. I know she still rejoices in all my limited efforts to alleviate those in distress. God bless you and your efforts. May they be crowned with abundant success, "in full measure and running over." This is my fourth year as a contributor to your fund.

STATE TO DO ITS DUTY IN CARE FOR INSANE

(Newark Evening News, December 28, 1928)

The half-mill tax law of this year, continuing the levy to 1929 for state institutions and agencies, is the act under which a site has been purchased in Monmouth County for a new asylum for the insane. The need for this hospital is acute and has been for years. The hospitals at Morris Plains and Trenton have been overcrowded for a long time, and this has been particularly serious at the Greystone Park institution. Up to this year, the lawmakers have been overcautious in trying to solve the problem, the existence of which has been disgraceful to New Jersey. They have done some piecemeal work, but it has not met the situation.

The site for the proposed institution has been financed by the State House Commission granting the request of the State Board of Control of Institutions and Agencies, for the $1,200,000 appropriation does not become available until July 1. With the site acquired, the next steps can be taken without delay, and the work should be pushed as rapidly as possible. The members of the Board of Control realize that the good name of the state demands the relief contemplated, and they are fully aware of the possibilities of a disaster at Morris Plains, due to overcrowding, that might shock the country.

There are indications of objection to the creation of a new institution by those holding that enlargement of the existing hospitals would be more economic; but the critics missed the opportunity to make their case effective when the law was passed this year.

To provide a hospital to care for 2000 patients, as contemplated and as needed, will call for a total outlay of $4,000,000 or $2,800,000 more than the appropriation already made. It may be taken for granted that the half-mill tax will again be expected to provide this absolutely necessary fund.

The statistics of the growth of insanity in the state are so startling as to force action even upon the most cautious of the legislators. The figures show that New Jersey's population slightly more than doubled between 1890 and 1920, while its insane in institutions more than quadrupled. And the rate of growth of the mentally afflicted has continued at practically the same rate, if not a trifle higher, in the 8 yr. since 1920.

The site for the new hospital is highly desirable. The climatic conditions are excellent, the land purchased consists of fine farms that will furnish outdoor employment for patients and revenue for the institution. The announcement from Trenton that a prison labor camp will be established in the near future to put the grounds in condition for construction work is a further indication that the authorities realize to the full necessity for pushing the project.

Communications

VIOLATIONS OF MEDICAL PRACTICE ACT

(A report from Dr. Charles B. Kelley, Secretary of the New Jersey Board of Medical Examiners)

The following is a list of the Board's prosecutions since our last report:

Louis Smith, also known as White Moon, an itinerant medicine man, pleaded guilty to the charge of practicing medicine without a license, in the Somerville District Court.

Cornelius A. Smit, a licensed chiropractor of Newark, pleaded guilty to practicing medicine without a license; having exceeded his license to practice chiropractic.

Eduardo Ruberto, an unlicensed physician, pleaded guilty in the Somerville District Court to a charge of practicing medicine without a license.

Charles Schaefer, of Oaklyn, N. J., who treats by laying-on-of-hands, paid a second penalty for practicing medicine without a license.

Louis H. Warner who conducts a laboratory in Newark, N. J., pleaded guilty in the First District Court in Newark to a charge of practicing medicine without a license.

Panayiotis Panoulias, of Jersey City, paid a second penalty for practicing medicine without a license.

Emery Pandak who was practicing in the Central Medical Office of Newark, N. J., pleaded guilty in the First District Court of Newark to practicing medicine without a license.

Joseph Tuliglowicz, a naturopath, of Newark, N. J., pleaded guilty in the First District Court to the fourth charge of practicing medicine without a license.

Wilhelm Cunze, a naturopath, of Philadelphia, who was treating patients in Mapleshade, N. J., pleaded guilty in the Burlington County Court to a charge of practicing medicine without a license.

Caroline Nilsson, an electotherapist, of Asbury Park, was convicted in the Monmouth County Court on a charge of practicing medicine without a license.

Louis Winkelmann, a licensed chiropractor, of Hoboken, N. J., pleaded guilty in the Jersey City District Court to a charge of practicing medicine without a license.

Elizabeth Zuercher, of Jersey City, who gave massage and electric treatments, was convicted in the First District Court of Jersey City, on a charge of practicing medicine without a license.

Elizabeth N. Holst, of Atlantic City, pleaded guilty to a charge of practicing chiropody without a license.

George C. Lezenby, Jr., a naturopath, of Atlantic City, pleaded guilty to a charge of practicing medicine without a license.

John White, of Atlantic City, pleaded guilty to a charge of practicing chiropody without a license.

Howard E. Broach, an unlicensed chiropractor, of Newark, N. J., paid the penalty for practicing without a license.

Horace E. Fox, an electrotherapist, of Camden, N. J., was convicted on a charge of practicing medicine without license.

Mary Gross, of Raritan, N. J., was convicted of practicing midwifery without a license.

Anna Franks, of Vineland, N. J., who gave spectrochrome treatments, pleaded guilty to a charge of practicing medicine without a license.

John Profetti, of Vineland, N. J., pleaded guilty to a charge of practicing medicine without a license.

Isaac H. Blae, of Newark, N. J., who practiced spectrochrometherapy, was convicted of practicing medicine without a license.

Gustave Napoleon, a druggist, of Trenton, N. J., pleaded guilty to a charge of practicing medicine without a license.

George R. Dencer, a licensed chiropractor, of Newark, N. J., was convicted of practicing medicine without a license.

Current Events

TRISTATE MEDICAL CONFERENCE

(Continued from January Journal)

THE STATE MEDICAL JOURNALS; THEIR PECULIAR FIELD

Frank Overton, M.D.,
New York

Medical service, in all forms, to all classes of persons, is the creed of the medical profession; at least it is the ideal to which every doctor will subscribe after a moment's thought. But in reaching that opinion the average doctor might have to delve into his subconscious mind to find the lofty motives that benefit his profession.

The individual doctor is one of a group called "The Medical Profession" and no one doctor can give all forms of medical service to all classes of people. He is under economic compulsion to sell his medical services in order to make a living; and so he must give the services which the buyers want and to those who want them. The creed of the individual doctor will therefore be a modification of the ideal of physicians as a group, and in its most business-like form it may be stated as—medical service for which the people are willing to pay.

It is to the credit of physicians that economic conditions, rather than selfishness, compel physicians to give emphasis to the financial aspects of their practice and to devote their major efforts to one group selected on the grounds of finance rather than medical need. Physicians who are busy serving their own private patients are likely to concentrate their thoughts on their own personal problems to the exclusion of the broad principles which are set forth in the creed of the medical profession. Proof of this attitude is the common statement of doctors that they glance through the index of a medical journal and read that which promises to interest them. Most doctors seem to think that the scientific department is about all there is to a state journal of medicine, One great object of this paper is to show that the news departments of the state journals are also of vital value to every physician; and that the news of the practice of medicine by medical societies is recorded in the state journals almost exclusively.

The editors of state medical journals must give heed to the preferences of the members of the medical societies; and it is a fact that the scientific departments of the journals are generally satisfactory. However, interest in a medical article consists of 2 elements: (1) the intrinsic appeal of the facts that are set forth; (2) the manner of presenting the facts.

An editor is always trying to arrange his articles so attractively that they compel the reader's interest. A state journal is the principal means of arousing the interest of the members in the activities of the state society and of spreading information concerning it and its component county societies. The editor can help the good work by pointing the news items in such a manner that they seem as important as the scientific articles. The New York State Journal of Medicine, for example, points its news items in the same large type as the scientific articles and gives each item a double column heading.

Individualism in the Practice of Medicine

The law of demand and supply operates in medicine as in other fields of human endeavor. Physicians are jealous of the right to practice medicine; which right is conferred on them exclusively on account of their special medical training and high scientific attainments. But the demand by patients has been limited to relief from crippling conditions, and the doctors' supply of medical service has been limited to those who seek the physician. The demand has been made by individual citizens, and the service has been supplied by individual doctors. Hence, the practice of medicine has been individualistic; and many needy persons have not received the benefits of medical attention. In contrast with the individualism of the past there has arisen a movement for the practice of medicine by groups of physicians banded together in medical societies. There is now a strong demand for medical service to the community in the way of education and social service; and the most practical way by which it can be supplied is by societies in which physicians act as a group. The medical societies give concrete form to the abstract idea of the medical profession, for the medical society is the medical profession. The activities of medical societies, therefore, supplement the practice of individual physicians. Medical societies practice medicine in a very real way.

The conception of the practice of medicine that is now held by the medical profession is much more broad than that stated in the Practice of

Medicine law of New York State, which reads as follows:

"A person practices medicine—who holds himself out as being able to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity, or physical condition, and who shall either offer or undertake, by any means or method to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity, or physical condition."

This definition confines the practice of medicine to the curative field and is satisfactory for legal purposes; but physicians, both individually and as a group or society, are also interested in the educational and social service activities of school teachers, nurses, and other laymen along health lines, as is shown by the work of the Committee on Public Relations of the Medical Society of the State of New York formed to advise and direct lay organizations engaged in work accessory to the practice of medicine. The interest of physicians in activities formerly left to lay organizations is further shown by the medical publicity work of the medical societies of Texas, Michigan, Nebraska and other states. All these activities are worthy of a prominent place in the state medical journals.

Historic

The system of practice of medicine by individual doctors has hitherto failed to reach patients classed as economically poor and those in the early stages of their diseases, or in the stage when sickness is only a threat or a possibility. As doctors failed to cover the field of preventive medicine, groups of philanthropists and social workers, some 15 years ago, attempted to provide that form of medical service by law, in accordance with the American custom of correcting all social ills and defects by legislative enactment. Those who proposed the laws placed responsibility for the neglect upon the doctors, forgetting that the medical profession followed the natural law of demand and supply. The doctors could not give more than the people demanded or were willing to accept. The promotors of the law assumed that, if doctors were readily available, the people would make use of all forms of medical science offered to them. They would voluntarily quarantine themselves on the first suspicion that they had contagious disease, and would follow the doctors' advice eagerly and intelligently in all lines of medical service. Provide free medical advice and service, and the people would adopt it. If the doctors would not provide the service, then the state would hire doctors who would provide it, as England and Germany have tried to do.

The plans for giving medical service in neglected fields under public expense and control underwent a remarkable evolution in 3 stages: (1) State medicine, (2) health centers, (3) demonstrations. These plans were practical failures, but out of them has grown a fourth plan—that of leadership by physicians in providing medical service in fields hitherto neglected.

State Medicine

The plan of "state medicine" was that of providing a system of practicing medicine like that in the army and the best hospitals. Physicians knew the length of perversion and imposition to which neurotic patients and politicians would go, and were also aware of the wire pulling to which ambitious physicians would be tempted to resort for selfish ends. State medicine was a serious threat 15 years ago, and physicians met it with opposition, although at that time they were criticized because they offered no constructive plan in its place. Time was required for the evolution of plans that would be mutually acceptable to uplifters and to physicians. State medicine was never accepted anywhere in this country.

Health Centers

When state medicine was found to be a failure, social workers devised the plan of "health centers" where certain forms of medical service and advice could be secured. The proponents of health centers could point to the excellent results attained by industrial establishments in preventing illness and accidents among their workmen, and to the reduction of infant mortality as the result of medical supervision of babies at child welfare clinics. Some health centers were established by volunteer organizations and some by cities and the Red Cross, but the plan has not been generally accepted although it was a great improvement on state medicine.

Health Demonstrations

A third stage in evolution of the principle of medical service to all people was that of "demonstrations" in the field of early diagnosis and preventive medicine. The New York State Department of Health entered this field of medical practice by sending examining teams and equipment to villages and rural districts for the purpose of demonstrating methods of examining and treating well babies, and stimulating physicians to undertake the regular medical supervision of babies in the families of their patients. Here was a recognition of the family doctor. The plan of the "demonstration" was that the record of examination should be sent to the family doctor, and that the public health nurse should follow up cases and see that the parents consulted their family physician. While execution of the plan had many defects, it aroused the interest both of physicians and patients, and was the first step in securing coördinated medical service for all persons by all groups engaged in public health work.

Medical Leadership

State medicine, health centers and demonstrations were founded on the principle of leadership of lay health organizations in the practice of civic medicine and public health; and so there grew up groups that rivaled the medical profession in the practice of medicine. While physicians still held the field of curative medicine, lay groups of health workers held the field of popular medical education and the practice of preventive medicine. But, there was much overlapping of interests in the debatable field of preclinical medicine that lay between preventive medicine and the treatment of those evidently sick. Physicians recognized the value of certain phases of state medicine, especially the public support of hospitals, care of the insane, and prevention of communicable diseases, so that there exists today more "state medicine" than physicians are generally aware; and phyisicans are constantly asking for more. For example, the Medical Society of the State of New York is promoting the adoption of county health departments.

Physicians also recognized the value of health centers, and practically every city has one for the diagnosis and treatment of tuberculosis and venereal diseases, and the promotion of child welfare and mental hygiene, and the practicing physicians approve them. Moreover, physicians recognize the value and necessity of demonstrations, and the doctors of New York State have conducted well-baby clinics in several villages by the

use of funds supplied by the State Department of Health and the assistance of lay health organizations. The medical profession has passed through the stages of opposition and indifference to the plans of official departments of health and lay organizations, and is now entering the stage of leadership in carrying out the ideal of the medical profession—medical service in all forms, to all classes of persons. The Committee on Public Relations of the Medical Society of the State of New York is one of the most active of our standing committees. Its object is to promote the leadership of physicians in all forms of medical practice, while at the same time it recognizes the necessity for official departments of health and lay health organizations. When that committee was first formed there was a tendency to state that the medical profession would assist the lay health organizations in carrying out their plans. Today, physicians reverse the statement and say that they will welcome the assistance of the lay health organizations. It is of importance to have a clear understanding as to who is the leader and who is the assistant. Cattaraugus County has not yet fully decided that question. Suffolk County has from the outset accepted full leadership by the physicians.

Medical leadership must be exercised along 2 distinct lines of activitiy: (1) Preparation of physicians to give medical service; (2) preparation of the people to accept and carry out the medical advice. The peculiar field of the lay health organizations is to prepare the people to profit by medical advice. If, for example, a person cannot make use of medical advice on account of poverty or distance from a hospital, then the lay health organization will be of essential assistance in the practice of medicine if it provides the finances and the means of transportation. There will be no difficulty in coördinating the work of the medical profession and of the lay health organizations, provided the physicians assume leadership and are always ready to give the service that goes with leadership as distinguished from the service of attending to nonmedical details.

Field Practice of Today

Having considered the historic evolution of the leadership of physicians in all lines of medical practice, let us survey the field of medical practice as it exists today, for it involves many activities which are outside of strictly medical and surgical service.

The Medical Society

The modern conception of the practice of medicine requires that physicians shall act in 2 distinct capacities; (1) as individuals; (2) as a group or society. Many forms of medical service—educational, economic, social—can be given only though the agency of the medical society, especially the county society. There is a place for every individual doctor in the work of the county medical society; the public speaker makes educational addresses to popular audiences; the politician secures votes for hospitals and county departments of health; the social leader secures the loan of automobiles to transport children to clinics; the writer prepares newspaper articles on medical topics; and the cartoonist draws posters and makes lantern slides for public speakers; each individual worker acts in the name of the society, and whatever fame or reputation he gets is to the honor of the entire medical profession.

From a practical standpoint, the medical profession is the county medical society. The ideal creed of the medical profession may therefore be stated as follows: *Medical Service in All Forms, to All Classes of Persons, is the Ideal of the County Medical Society.* Let us analyze this creed, and come to a clear understanding as to what it implies, for on its interpretation by the individual doctor will depend his whole attitude toward the practice of medicine. Moreover, the attitude of the public in medical matters is felt by every practicing physician. When a financial status is the principal element in securing medical service, there is ground for the assertion of cultists that they are opposed by doctors from financial motives. When doctors resent the rivalry and criticism of public health nurses, the uplifters accuse the physicians of narrow-mindedness. Every doctor, no matter how individualistic and selfish he may be, resents the indignities put upon the medical profession by critics of all kinds, from cultists in legislative halls, to psychologists in forums and magazines. The doctors will win respect when they make a positive assertion of their principles, and devote time and effort to their establishment and practice. Every physician would become interested in those principles if the state journals would record their theory and practice in a more available form.

The Science and Art of Medicine

Medical service is both a science and an art. The science of medicine consists of the basic facts of anatomy, physiology, chemistry, pathology, psychology and all other sciences which are related to health. It is a great reservoir of information to which physicians and scientists the world over contribute and from which they may draw unlimited supplies free of charge or restrictions. Medical science may be considered as the sun which sheds its life-giving rays on all mankind. The art of medical practice consists in application of the facts of medical science. The light of medical science is carried by physicians and applied by them to the people. There are many obstacles which prevent physicians from carrying the light of medical science to the public. There are barriers of poverty and location and there are clouds of ignorance and prejudice which shut off the rays of science. Physicians, therefore, require the help of assistants, such as hospitals, laboratories, nurses, social workers, departments of health, and voluntary health organizations. It is almost impossible for a physician to practice any form of medicine today without the help of some of these assistants.

Art without science leads to cults and quackery. Self-styled healers light a fire of their pretenses, whose smoke obscures the sun of medical science, although many people may mistake it for the real source of medical knowledge and power. Medical societies owe a civic duty to assert their leadership in sweeping away the clouds of ignorance and falsity that obscure the sun of medical science. One phase of this work is the popular lectures and articles that are prepared by publicity committees of the medical societies of states and counties. One of the fundamental objects of every medical society is to contribute to the common fund of medical knowledge, and to instruct its members in the art of applying that knowledge to the people.

Curative and Preventive Medicine

Medical practice is divided into 2 great branches whose distinction, however, is largely artificial: (1) Curative; (2) preventive. The people show all gradations of health from those mortally sick, through those who merely feel tired or fatigued,

to those in robust health. Both the individual physician and the medical society have a service and a message to each class of persons. To the sick, the physician brings the benefits of clinical medicine and surgery. To the fatigued, physicians bring a message of prevention in the form of hygienic advice, although they are likely to leave that form of advice to the public health nurse. To those in robust health, physicians have an educational message through newspapers and magazines, through lectures, and through instruction in schools. The periodic health examination represents one of the modern forms of the practice of preventive medicine by individual doctors and by medical societies.

Acceptance of Medical Services

While physicians are ready to provide medical service to all people, yet individual persons differ widely in their acceptance of that service. There is the comparatively small group of health seekers; the large group of those who are indifferent until actual danger is at hand, and even then they may not accept the doctor's advice; the group of those opposed to medical science. It is the function of the county medical society to change the mental attitude of the groups of indifferent and opposed, and, if possible, to convert them to an active support of the medical profession. This is the work of the publicity and educational committee, and has been carried on by several state medical societies, notably those of New Jersey and Nebraska.

Field of State Medical Journals

The record of the practice of medicine by county and state medical societies is contained almost exclusively in the state journals of medicine. The practice of medicine by departments of health, voluntary health agencies, educational institutions, and civic associations, is abundantly recorded in journals devoted to public health work and social reform, but these journals scarcely mention the work of medical societies. It is a startling fact that there are very few records of the practice of medicine by medical societies, except those found in state journals of medicine. Yet the leadership of physicians in all forms of medical practice has become an accepted fact, and has been asserted in practically all lines of health work that are carried on by other groups, including departments of health, lay health associations, and educational organizations. The time has come for developing that literature and making it available. How can this be done? Let us answer this question under 5 headings: (1) Securing information; (2) writing the items; (3) the form of printing them; (4) indexing; (5) abstracting.

Securing Information

Officers and committeemen of medical societies often seem to think that activities along scientific lines are about all that are worth recording. The fact is that medical societies are engaging in activities which are intimately connected with the welfare of both the people and the physicians; and the officers of other societies wish to know what has already been tried and done. Medical societies, for example, are considering plans for immunizing children against diphtheria. If a county medical society wishes to take up the work, where would its secretary look for information? He would find very little written on how physicians or their societies could conduct the campaign; and yet many medical societies have engaged in the work. He would not find the record of the physicians and the medical societies in public health journals. The secretary would probably ask the Commissioner of Health of the nearest city how to start and conduct his anti-diphtheria campaign. This is an example of an important activity whose details are only meagerly recorded. Other activities for which an inquirer would naturally look in the state medical journals are county departments of health, graduate education courses by medical societies, popular medical lectures, newspaper advertising of the attitudes of medical societies, medical legislation, county medical surveys, public speaking courses for physicians, commercial exhibits at state medical society meetings, scientific exhibits.

Writing the Items

A common defect in the reports of activities of medical societies is that the mere record of a resolution passed, or a debate held, does not give any information regarding the work accomplished. Almost any medical society, for example, will be willing to pass a resolution endorsing an anti-diphtheria campaign, but the important part of the record is—what was done and how. An example of an incomplete record was that contained in the October, 1927, issue of the Ohio State Medical Journal regarding a referendum on the Chiropractic Bill that was before the Legislature. The referendum may have been understood by the physicians of Ohio, but the reader outside the state had difficulty in finding out that the legislature may submit a bill to a referendum of the voters; and that during the campaign the proponents and opponents of the bill may submit an argument as to its merits and defects. A brief explanation in the journal would have made the meaning of the article clearer. The records and activities of medical societies would be greatly enhanced in value if explanations accompanied them.

Form of Printing

News items regarding the activities of medical societies will seem unimportant and insignificant if they are printed in type of a smaller size than that of the rest of the journal. They are worthy of large type and proper headings.

Indexes

Items regarding the practice of medicine by medical societies will not be available unless they are indexed. Many of the items are found in the reports of presidents or secretaries or committees. An index headed, "President's Report", gives no clue to its contents. It would be a good plan to prepare an index on medical society activities as recorded in the journal and to publish it as a separate section of the annual index. A tentative index of the items appearing in the New York State Journal of Medicine during the last 20 months covers 19 typewritten sheets, and is in constant use by the editor. Such an index will be printed at the end of the year. The Index Medicus does not carry an index of items from the news section of state journals or of any other journal. A person looking up the record of the actions of state medical societies on any subject would not be likely to find it in any index, but would have to search patiently through the files of all the state journals. Here is where an index of each journal will help.

Abstracts

The value set by other editors on items regarding medical activities may be judged by the abstracts which they publish. Only seldom is an abstract of a news item in a state journal used

in any other journal; while abstracts of scientific articles frequently appear. The Journal of the American Medical Association, for example, abstracts only scientific articles. The Editor of the New York State Journal of Medicine has sometimes printed news articles on society activities in the scientific department in the hope that they would receive the notice that they deserve. The New York State Journal of Medicine has a department called, "Our Neighbors", containing extracts of records of society activities quoted from other state medical journals. That department has a great interest and value—to the Editor at least.

Probably enough has been said about improving the state journals along the lines of: (1) More items; (2) better style of writing; (3) more prominently printed; (4) more fully indexed; (5) quoted when something of special value appears.

To this may be added the suggestion that the editors make a practice to read the records of aspiration and achievement by other state societies.

DISCUSSION

Dr. Arthur C. Morgan (Philadelphia): I have enjoyed perusal of the New York Medical Journal since being on their exchange list and I can bear testimony to the value of the points made by Dr. Overton in making his own journal readable and accessible when one wants to search for headings. As a man who has been doing some literary work for some years, I can appreciate the value of his recommendations and in the outline presented by him there is much food for thought that can be amplified and developed by every one of us whether we are publishers, editors or simply readers of the journals. It is true that the thought uppermost in the mind of anyone who subscribes for a medical journal is that of scientific advancement rather than development of the social and economic side of medicine. It would seem that a little lighter vein now and then would be appreciated by the medical profession in general and my impression has been for some years that the Journal of the A. M. A. could well afford to reapportion the amount of space it gives to the scientific papers that are presented at the expense of the human side of the abstracts and the general news published.

Dr. Frank C. Hammond (Philadelphia): There is just one phase that I would like to touch upon and that is the question of supplying the county medical societies with material and how the county societies can assist the editors of the journal. The county society reports, to be read, must be interesting. They should not be merely a report of the date, the number of members present and papers read, but an account of the interesting activities of the society, reports of the health meetings held, propaganda put forth, accounts of interesting banquets and abstracts of the most interesting papers read, and all the worth while activities of the society, so as to make the county society reports the most popular department of the journal. They should be carefully written before sending them in. You may well imagine the editor's distress at receiving badly phrased reports, written with a lead pencil; yet this is what happens month after month. In fact, many of them have to be rewritten and entire papers are sent to the editor for abstraction. While this department has shown great improvement in the past few years, there is yet much to be done.

As Dr. Overton has said, it is important to index the journals so that they are of value for future references. We shall put that up to our publication committee to see whether we can have it put through because it does seem to me a very valuable suggestion.

Dr. Joseph S. Lawrence (Albany): I am sorry that I cannot give Dr. Overton's paper the type of discussion that it deserves. We have spoken a number of times about the idea of getting better reports into the journal, about the county activities, but we have not talked over the idea of indexing and I want to heartily endorse this new idea. I see the importance of it because in my work I frequently have occasion to go back over the journals in order to see what the society has done in the past and it simply means reading every page of every journal devoted to that subject in order to find what is wanted.

You have in New Jersey a system providing reporters for each county. We do not have that in New York and the county society secretary is rather expected to make reports although I do not know whether it is ever very clearly stated or defined. I have urged them to make reports in the last couple of years and I believe they are sending in something, although it is usually very sketchy. Of course, not everybody can write for a journal a clear and concise statement of what they have heard, and too often the reports simply give a statement of the meeting having been held —which means nothing to the man who is reading it. He does not care what the subject of the paper was. The discussions that have to do with the paper or the presentation of new ideas might be mentioned briefly, but I believe what the average man looks for is to see what the county society did at the meeting that has a bearing other than scientific, a discussion of the social side or of economics in the practice of medicine. I think also that readers of journals are interested in an obituary column. It would be well to have a little more space given to the men who have died, who were prominent in the state society, calling attention to what they have accomplished. I notice that the newspapers are giving splendid write-ups today to the county society meetings and I think the journals should do that too for it would stimulate the county society. Certain important activities should be spoken of in a semi-editorial way, things that will appear to be sort of news notes; they have a value. I heard a man say yesterday morning, "Can't we make our journal less of a scientific magazine and more of a medical journal?" That is an expression that comes up very often.

I heard Dr. Overton say at the last publication committee meeting, where there had been some remark made that county affairs had not been written up in the journal, that he had made an analysis of the last year's journal and his report astonished the Publication Committee. We only know about our journal in some instances what we can recall at the time of speaking.

Dr. J. N. Van Der Veer (Albany): I think we are coming to the point where we are going to need a stenographer for every county society meeting. As doctors, we are unable or unwilling or too lazy or else incapable of taking down discussions that occur in our meetings which are of the utmost importance to other members of the state and county societies. I think, as Dr. Lawrence pointed out, that there are things which occur which are of equal importance with the scientific questions that come up. This discussion

should be taken down by an unbiased person, a trained stenographer, and then transmitted to our journals, and this would be of greater value than our present method of reporting in New York State. That is one advantage that you have over us. This method of reporting discussions and the various questions that come up would help iron out some of the difficulties I am sure.

Dr. Walter F. Donaldson (Pittsburgh): Being an individual of limited intelligence, I never attempt to discuss more than one phase of a paper, and I am impressed with this contribution of Dr. Overton's regarding the county medical society's interest in its own state journal. I may say that in Pennsylvania, and I am sure Dr. Hammond will bear me out in this, we have a few county societies that are so fortunate as to have reporters who report the transactions of their respective county societies to the journal for publication in such a way as to make it a valuable contribution and I believe that if these several state society editors would ask the reporters not to recount simply the papers read but ask them to develop only one point from each program which they believe would be of interest to other county societies it would prove an actual contribution to the state society, and those reports at the end of the year would be quite worth while. I would develop the thought that was originally expressed here by Dr. Lawrence, that we seek reporters in county societies and instruct them to select only one high spot for each monthly meeting report.

Dr. Harry R. Trick (Buffalo): This is such a special field of work that I do not feel at all competent to discuss it, but it occurs to me that the first essential is to determine what kind of a journal we need. I feel that if it is to be considered as presenting a scientific debate those who look for that sort of thing may be disappointed in the character of our journal. If it is determined that the journal should be a source of information of the activities of the counties then we are producing something that is interesting to the county members. It seems to me that the men who are responsible for that work know much better how to secure those results than do those of us who are not so actively concerned in the production of a journal.

Dr. James E. Sadlier (Poughkeepsie): When we come to discuss journalistic methods as described by the men here today, especially Dr. Overton, I feel quite unable to enter the discussion. I feel that we who have been officers and some of us who are yet in rather outstanding positions in our state societies owe to these editors who are present today a very definite apology for the negligence and remissness of the past. Could I have had the knowledge 2 years ago that I possess today, with reference to this unfortunate journalistic apathy, I could have transmitted to our editor from many county societies things which would have been important and almost vital to our organization. I will recall one effort that I made which has never come to light. After returning from a large county society that I visited during my term as president, I dictated a few notes referable to what I thought of that particular organization. As written they would not have stood for public reading but I should have transmitted those notes to our editor. We are leaving our editors altogether too much without that important information that comes to us and we should use our journal to a much greater extent than we are doing at the present time.

Dr. William T. Sharpless (West Chester, Penna): My experience with medical journalism has been very small. It has been limited to the county paper. We have a number of those county society bulletins that are really good medical papers. They do not contain much of interest outside of medicine. I think that if the editor of the state journal would consult the men who are editors of the county society bulletins he would be able to get a good deal of valuable information for his journal.

Dr. Henry O. Reik (Atlantic City): This is a very broad subject for discussion. I think we might well devote one entire session of this conference to the subject of—what constitutes an ideal state society journal—because that has relations to practically everything that the state society may, can or should do. As I conceive it, the state society medical journal is quite a different proposition from an indepnedent medical journal dealing with scientific matters whether relating to general medicine or to the specialties. It is in a sense comparable to what the business men call a "house organ" and, consequently, we have endeavored in the New Jersey State Journal recently to follow that sort of an example.

Discussing Dr. Overton's paper, first as regards publication of scientific articles, articles dealing with scientific problems or so-called "original articles", we have felt that that section of the journal ought to represent the work that is being done by members of the state society. So, regardless of who may be presenting papers at the various county society meetings or state meetings, we give precedence to the papers prepared and written by the members of the state medical society. By that means we have been able to present through the New Jersey Journal a picture of what the New Jersey men are actually doing, and also to encourage them to bring their best work to the journal and to their own state society.

The next most important thing that we have done is to encourage the reports from the county medical societies. The November Journal just came to my hands this morning. It has 96 pages of reading matter and 20 pages are devoted to the reports of county medical societies. In 1927 we were able to say that a report of every county society meeting held in the state was published within 1 month of the date of meeting. It is hardly possible to maintain that sort of a record. During the month of October, 20 of our 21 county societies held meetings; 18 of them are reported in the November Journal; 1 county society was not reported because the reporter and secretary both happened to be ill that night and were not present; 2 are not reported because one occurred on the twenthy-eighth of the month and 1 on the thirty-first, dates after the journal had gone to press. We are insisting that the county societies must send in their reports *immediately* after the meeting. Such news items as they present are valuable in so far as they are fresh and we decline to publish old material. By that means we have stimulated reporters to send in their material promptly.

Regarding the question of indexing, we have not attempted to index specifically the material presented in the county society reports but we have attempted in the Table of Contents to indicate what important reading matter there is in the

county society meeting records. We have not been able to do that regularly, for the want of space, but in so far as we can we indicate in the Table of Contents what the reader may look for in the county society reports.

One word in regard to having your meetings reported by stenographers. Please accept an amendment of one word; make sure that they are *medical* stenographers. I happen to be a stenographer myself. It seems to many that it should be a simple matter to report any meeting because it is merely a recording of what you hear. As a matter of fact, the best trained stenographer in the world, one who reports Congressional material, put up against medical terms will take down the sounds but when stranscribing his notes the sounds mean nothing to him. I have had such reports come to me that were simply worthless and had to be thrown away. The reporter can write the sounds but cannot translate them and, therefore, what was written was no good. So if you employ a stenographer be sure that you get a *medical stenographer.*

We have felt, regarding the general policy of the journal, that we should first record what the New Jersey men are doing. It is their journal. Every member is a stockholder in that journal. Every one of them is the editor's boss, and while we do not feel, as a result, that we must accept everything that comes in, nevertheless, we must use a certain amount of discretion as to its disposition.

Then, we can use the journal as an educational factor. We cannot work postgraduate courses in New Jersey as you do in the neighboring states because we have no medical school; that may be a blessing in disguise. Pennsylvania very courteously offered us a postgraduate course from the University; not only would they have received any members, but they would send over their teachers to attend our county society meetings. This did not seem feasible because the cost to individual members was too great. The state society was not in a position financially to do what New York did, to appropriate $5000 to carry on this work. But we can utilize the journal for a certain amount of this work and establish specific sections in the journal. Every month we carry an article on some phase of medical economics. Every month there is an article on some phase of medical ethics, and another on esthetics. There is a page given over to "The Lighter Vein". If we can get the members to read the jokes, we have accomplished something, for they are pretty apt to see something else of interest in the journal.

The editor often wishes to know what specific feature of the journal is preferred. It is very difficult to get an expression of opinion and after 4 years of work the editor of the New Jersey Journal does not know what is really most approved by the members of the state society. A man here and there says something about it and we feel encouraged to go on with it.

We have condensed our abstracts of medical literature—which we have called "Observations from the Lighthouse", the Editor having lived very close to the Absecon Light House—and instead of publishing the ordinary type of clipped abstracts from medical journals we have taken some practical topic and have run through the national and state journals to find out what has been written recently about that and then made a "running story", giving specific references to our sources of information. I think that has proved to be a very important factor of our journal.

In the November Journal we have started a new feature, and are very anxious to see how it works out, the title temporarily being "Collateral Reading". It seemed to me the time might have arrived to direct attention to the numerous books and magazine articles of a semiprofessional character that are appearing. You know that Century, Harpers, and other magazines are carrying each month articles bearing upon medicine. It must be a matter sometimes of interest, and sometimes possibly of embarrassment, for a general practitioner these days to find that his patient knows more about what the public is saying concerning medical matters than he does. It seemed worth while to carry a book review section, not on medical books but on current literature, such as Collins' "A Doctor Looks at Life and Love", Watson's book no "Behaviorism." We have reviewed an article from Harpers. The object is to attract members of the profession to reading something outside of strictly medical literature, still, however, keeping within the bounds of medical problems. As you know, there has been a tremendous amount of discussion through novels and general literature during the last few years relating to questions which concern the medical profession. Birth control, for one thing, has had a tremendous vogue and the average intelligent layman is quite as well if not better prepared to discuss the subject than the average doctor. I do not know whether this is a proper estimate of what a medical journal should be, but, at any rate, we are trying this collateral reading in the November Journal.

I am going to suggest that one of our meetings shall be devoted entirely to the subject of what constitutes an ideal state medical journal, and I think we might well devote one meeting entirely to a further discussion of this subject which Dr. Lawrence presented to us today in a concentrated form. The one vital living factor, of course, in medical organization is the county medical society. It is the county, then the state and then the national society, but the keystone is certainly the county society, and I think we can well afford to devote one other meeting to the discussion of that topic.

Dr. Frank Overton (New York City) closing: Dr. Simonton has recently written a paper on "Sensitizing the County Societies". My paper was not so much to bring you information as to sensitize you to information, to the necessity of publicity in the state journal.

Dr. Reik: Mr. President, we are informed that the New York members of the Conference desire to have the next session in their state, following previous custom, and I move we accept the invitation.

This motion was seconded and adopted.

The meeting adjourned at 3 p. m.

Henry O. Reik, Secretary.

FIFTY-FOURTH ANNUAL MEETING NEW JERSEY PUBLIC HEALTH AND SANITARY ASSOCIATION

The Fifty-fourth Annual Session of the New Jersey State Sanitary Association, recently reorganized under the above title, was held at Princeton Inn, December 7 and 8, under the Presidency of Dr. B .S. Pollak.

The election of officers for the ensuing year resulted as follows: President, B. H. Obert, Asbury Park; First Vice-President, Henry B. Costill, Trenton; Second Vice-President, D. C. Bowen, Asbury Park; Third Vice-President, Samuel B. English, Glen Gardner; Secretary, Edwin Guion, Northfield; Treasurer, Herbert B. Baldwin, East Orange; Chairman Executive Council, Samuel L. Salasin, Atlantic City.

A number of very interesting papers and discussions were presented at this convention and we are permitted to publish the following abstract report thereof:

The Purposes, Contents and Preparation of Health Reports

Ira V. Hiscock

Associate Professor of Public Health, Yale School of Medicine

The author reviewed the generally uninteresting character of public health reports and suggested means for making them more attractive to prospective readers. "Before beginning the preparation of any report, it is obviously essential to consider the groups that may receive and read it. Certainly, the local officials, particularly the chief executive, the members of the appropriating body, and of the health board should be interested. But is there not a greater field of usefulness? Are there not other representative citizens of the community who should be reached through this channel? As reports improve, they are requested by libraries and public schools. Health departments of many cities are profiting by an exchange of reports with those of other localities, because of the opportunity offered for comparison of health practices and results. The preparation of health reports should stimulate good book-keeping. The maintenance of accurate records of health activities and results is an application of good business methods. Directors of a successful business concern recognize that careful records of their operations are essential in evaluating results and in guiding the course of their organization along sound lines. Fully as necessary are adequate and accurate records for the wise direction of an organization engaged in the care and prevention of sickness and the promotion of public health. The present tendency is toward a form of report which will be easily read and instructive to the common citizen rather than a mere statistical résumé which is of interest only for reference purposes."

Public Health and the Law

James A. Tobey, LLB., Dr. P. H.,

Director of Health Service, The Borden Company, N. Y.

"Although we all recognize that educational efforts in public health are more valuable than police measures, we are all aware that law is and probably always will be involved in public health administration. The efficiency of a health officer may be to a certain extent measured by his ability to keep out of court, either as plaintiff or defendant, and still get good results in promoting public health.

In New Jersey there is already a large amount of legislation pertaining ot public health. The state health laws require a pamphlet of nearly 400 pages, and in addition to this there is a State Sanitary Code promulgated by the State Department of Health, which takes up 30 pages more. In New Jersey, as elsewhere in this country, the making of laws and more laws seems to be one of the great popular pastimes. In one year in the United States when most of the legislatures are in session, about 50,000 new laws are proposed, and about one-third of this number are adopted. In spite of this insane plethora of legislation, the question may legitimately be raised as to whether the needs and progress of public health are very adequately taken care of in a legislative way.

A most valuable piece of work would be the collection of all our state health laws and the court decisions relating thereto, listing them with dates, complete references, and an abstract of each. The references to court decisions in the compilation of New Jersey health laws are incomplete, both with respect to number and citations, and the decisions on the subject under the heading of 'Health' in the several volumes of the New Jersey Law Digest are likewise extremely incomplete. When a new edition of the health laws of the state is issued, a section on court decisions might well be included. If for any reason the state cannot perform this duty, it might appropriately be made a function of the New Jersey Public Health and Sanitary Association.

Law always has been and always will be one of the necessary implements of the health official, who must enforce the public health law in a reasonable, but vigorous and effective manner. In doing that, he will, like the Athenian citizen, be fighting for the ideals and sacred things of the city, both alone and with many, and like the Athenian he may appropriately take that famous oath, which says: 'We will revere and obey the city's laws, and will do our best to incite a like reverence and respect in those above us who are prone to annul them or set them at naught. We will strive increasingly to quicken the public's sense of civic duty.' In his endeavor to accomplish this ideal, it is worth repeating that the health official will be able to do it if he has an intelligent conception of the many legal phases involved in his office. If he has that knowledge he will be more fitted to perform the duty suggested in the ancient Oath of Athens, 'to transmit this city, not only not less, but greater, better and more beautiful than it was transmitted to us'."

Diphtheria

W. H. Park, M.D., Director of Laboratories, Department of Health, New York City

Dr. Park reviewed the history of diphtheria in this country, the efforts made to control it, and endorsed immunization campaigns now being conducted in several states. With reference to treatment of the disease, he said: "Those of you who are physicians know that in New York we put on our diphtheria culture blanks—'do not wait for the result of the culture before giving antitoxin'. That is, in any case where the disease is severe enough to be a possible danger of diphtheria, that patient should receive antitoxin right away, and not wait for the culture because we all know that antitoxin cures practically all cases of diphtheria if given within the first 24 hours; if given in the second 24 hours, there is a mortality of about 5%, and it seems far wiser to run the slight risk of

serum illness or more severe anaphylactic shock than to with-hold the remedy for 18 hours or more."

Regarding release from quarantine, Dr. Park finds 2 negative cultures sufficient for general purposes, provided the first is not taken until the lapse of at least 12 days from the beginning of the disease. Experience has taught that campaigns for immunization of school children have a far-reaching effect in that they not only result in immunization of a large percentage of children in any community but that the object lesson to parents tends to induce them to have their younger children immunized by the family physician. This educational work helps us to reach that part of the population, the preschool child, that is in greatest danger from the disease and the source of the greatest danger to the community.

Regarding the controversy over toxin antitoxin, anatoxin, and toxoid, he considers the arguments as technical in character and of rather insignificant practical importance. The main point of interest is that we have in the immunization process the means for control of diphtheria but that, like smallpox vaccine, unless we use it, we cannot provide protection for the public.

Statewide Antidiphtheria Campaign in New Jersey

F. J. Osborne, Health Officer, East Orange, N. J.

As chairman of the state committee appointed by Governor Moore, Mr. Osborne reported on the progress of the campaign up to date.

"One of the peculiar and, we think, sound characteristics of this campaign is that each of the 21 county chairmen is a carefully selected physician, vouched for by the state medical society and selected not only for his standing in the profession but for his reputation for getting things done. The plan calls for the county chairmen to select a chairman in each municipality of his county and, after supplying him with a copy of the 'Plan', to ask him to organize a local committee, the composition and duties of which are outlined in this document. To assist these physicians in organizing their county committees, names from the agencies represented at the Governor's conference were forwarded with the suggestion that they be used on these committees in any way that seemed best. Letters were also sent out asking that each county chairman select, from his knowledge of local people in his county, persons, preferably doctors, of standing and with some knowledge of organization procedures, to serve as chairmen of local committees. It was felt that by adding these chairmen to the county group already designated as a county committee there would be moulded into a single directing body, representatives from those organizations throughout the state having county units and the men actually directing the campaign in the local centers.

With the exception of 9 counties, activity has been reported throughout the state. The amount of work done varies considerably. Atlantic, Bergen, Hudson, Hunterdon, Monmouth, Ocean and Union have shown the most activity. Burlington, Cape May, Cumberland, Essex and Somerset have indicated by inquiries and requests for films, literature, and other supplies that they are preparing for a campaign. Detailed information as to results is not yet available except that in Atlantic a county committee has been organized and 13 local chairmen appointed; in Bergen a county-wide organization is functioning; in Burlington a committee composed of the chairmen of 9 communities is at work; in Hunterdon 17 municipalities have local chairmen appointed, and in Ocean, 12 towns are organized. Already existing agencies are carrying the brunt in several counties. In Atlantic, for instance, Dr. Salassin has turned the routine work over largely to the Tuberculosis League, as has Dr. Remer in Burlington and Dr. Niemeyer in Hudson. In the latter county, also, the county medical society is standing behind the publicity campaign, as they are in Essex and other counties, and the Jersey City Health Council is lending the full force of its organization to this movement. Dr. Morrow, in Bergen, is using the county association of public health officials; Dr. Crowe, in Cape May, the county health league; Dr. Brown, in Monmouth, the county organization of social service; and Dr. Bunnell, in Ocean, the county health association. In Ocean, the County Superintendent of Schools, Charles A. Morris, is closely identified with the movement, as is Harry W. Moore, County Superintendent of Hunterdon. Several of these counties report that fully one-half their school population has been offered diphtheria immunization, the effort in these places now being to reach those sections not yet covered and to emphasize the preschool problem. Much good work has been done in many counties by the district health officers of the State Department of Health who have for many years been carrying on with the assistance of the trained personnel of the Bureau of Local Health Administration.

As so often happens, this campaign has not been all it promised at the beginning. We all know how easy it is to lend one's name to an organization when it is understood that no burdensome duties will be thrust upon us. It is apparently about as easy to pledge the coöperation of an agency, but when the call comes for that cooperation to take some more tangible form than a mere promise, it is often found that time, personnel and funds are either fully occupied in activities more directly concerned with the problems of the given organization, or cannot, as a matter of policy, be used as had been expected. I think we should be encouraged with the special assistance afforded this movement by the organized medical fraternity. We are equally hopeful that the health departments of the state will, as the local units begin to function, be more actively concerned in this campaign, which will probably return greater health dividends than any other similar activity in which we can at this time engage."

Policing the Mouth

W. W. Peter, M.D., Dr. P. H., Associate Secretary American Public Health Association

Dr. Peter gave a very interesting illustrated lecture on the importance of cleanliness of the mouth. Citing the national health statistics to show that the mouth and nose are the chief portals of entry for infectious diseases, he directed attention to the fact that personal efforts at preventive medicine are of greater importance in relation to these diseases than anything that can be accomplished by local or state boards of health. Then, taking up the means by which people become infected, that is, through the air routes and the intake of food and drink, he discussed measures necessary for self-protection; these referring largely to avoidance of polluted air and water, requiring cleanliness of food utensils in public restaurants, policing public places and conveyances as to possible infection from expectoration, and limitation of osculation—especially during epidemic periods.

Medical Book Reviews

Department Director, Royce Paddock, M.D.

CRITERIA FOR THE CLASSIFICATION AND DIAGNOSIS OF HEART DISEASE; by a committee: Joseph H. Bainton, M.D.; Robert L. Levy, M.D.; W. C. Munly, M.D.; Harold E. B. Pardee, M.D.; appointed by the Heart Committee of the New York Tuberculosis and Health Association. Arranged in conformity with the Nomenclature for Cardiac Diagnosis approved by the American Heart Association. Published by Paul B. Hoeber, New York. 1928. Price $1.50.

(Reviewed by Geo. H. Lathrope, M.D., Newark.)

This book is—what many books are not—exactly what its title proclaims. There is a minimum of discussion, though mooted points are indicated, giving the views of the Committee; but it is written in easy style and makes good reading. It adopts at once, and gives in detail, the nomenclature of cardiovascular diseases of the Heart Committtee of the New York Tuberculosis and Health Association. Then it proceeds to elaborate each diagnosis under each of 4 sections, etiologic, anatomic, physiologic, and functional; the last named section endeavoring to supply means for estimation of and method for recording functional capacity. It is so arranged as to make an easily used reference book from which to cull information for accurately recording cardiac diagnoses.

The restraint which the writers have shown in avoiding discussion and in keeping entirely to brief and succinct statement is admirable, and the New York Tuberculosis and Health Association is to be congratulated on its selection of the men who have compiled this small but valuable volume.

It is valuable, the most valuable book of its size (91 pages) we have seen in many a moon. Hospital staffs will find it exceedingly helpful. Its use will offer their interns far more real knowledge of *how* to study their heart cases than the majority now obtain. Attending physicians who desire accuracy and uniformity in their records will welcome its presence in the hospital library. It shows how to avoid confusion and gives to hospital and clinic a uniform standard of terminology and diagnostic criteria for records and publications; and, if generally employed by teachers and writers, students and readers will be measurably relieved of the burden now upon them of trying to decide if the professors are talking about the same or different things.

Anyone who will read this little volume once will probably read it twice, and will then place it on his desk and use it. It will be a great blessing if this book comes into general use, as it should. It would be a greater blessing if some genius would do the like service for gastro-enterology—to mention only one other sorely befogged department of medicine.

RECENT ADVANCES IN CHEMISTRY IN RELATION TO MEDICAL PRACTICE. Lectures of the San Diego Academy of Medicine, Series of 1927. W. M. Marriott. St. Louis, The C. V. Mosby Co., 1928. Pp. 128. Illustrated. Price $2.50.

"It is the purpose of these lectures to summarize present knowledge concerning certain important phases of chemistry and to point out, in so far as possible, the clinical applications of chemical principles." This extract from the preface defines the scope of Dr. Marriott's lectures. Published as a book, they serve to introduce the reader to the fundamental chemical mechanisms which govern the regulation of such important body processes as the maintenance of neutrality and the utilization of foods to develop energy.

The introductory chapter suffers from difficulties inherent in the task of making physical chemistry interesting to medical men. In the absence of present workaday applications, the didactic statements have an academic sound. Perhaps the theory of the buffer action of blood is still beyond the need of the average physician, though he probably will be interested in this clear explanation. However, scattered applications are brought out throughout this chapter which mainly deals with physical chemistry. They are given merely as general statements, without particulars or references. In the case of the isotonic relations of the blood, application is perfectly evident, and colloid precipitation is generally familiar in the tests for albuminuria.

The chapter on acidosis and alkalosis extends to nearly one-quarter of the book's small bulk. This is a valuable chapter, since it definitely describes the various mechanisms which may produce this symptom-complex. The ketosis which may appear in diabetes, in starvation, and in certain infections differs from the acidosis due to unoxidized lactic acid present in circulatory insufficiency of various types, including anhydremia. The acidosis of nephritis varies in being due mainly to defective excretion of acid phosphate. The acidosis which may follow anesthesia, or severe burns, is also different, though less well understood, according to the author.

However temporary such a classification of acidosis may be, it should prove a valuable check on the loose clinical application of the term which often serves as a cheap substitute for a more real diagnostic entity. The author gives methods of diagnosis and treatment. For diagnosis of the condition he recommends the standard VanSlyke blood determination, and a simpler indicator method to be used with urine. He well states the limitations of diagnosis by "acetone" in the urine and completely explains the fallacies in this field. The treatment recommended varies naturally with the mechanism of the type of acidosis but it is to be noted that the author stresses the dangers of alkalies where acidosis is suspected. The less known but equally important subject of alkalosis, in which the urine may still be acid, is discussed.

The chemistry of the oxygen-carrying function of the blood, and the metabolism of the various kinds of foods and mineral elements are interestingly but briefly described. Parathormone is recommended for tetany but no dosage given. Calcium is recommended in definite dosage, as is done throughout the remainder of the book. Kidney diseases are merely mentioned, as this is now an old story. The changes in blood cholesterol and serum protein in tubular nephritis here given are evidently the only recent chemical advances in this field.

Metabolism is briefly and, as far as the reviewer can judge, well treated. The chemistry is well explained, the style is not dull, and in a few long paragraphs, indications for diet in anemia, diabetes, and nephritis are given. In addition, Shaffer's formula for avoidance of ketosis is given and explained. Pregnancy and infancy are included in the list of conditions requiring special diets.

The book concludes with a brief chapter on endocrines.

The Woman's Auxiliary

The Woman's Auxiliary to the Kentucky State Medical Association has on previous occasions furnished us with inspiration, and so, once again we take the liberty of copying from the Medical Journal of that state, issue of November, 1928, and this time reproduce a portion of the Presidential Address delivered by Mrs. J. T. Reddick, at the last Annual Meeting of the Kentucky Medical Society's Auxiliary:

A president seeks advice and I am hoping for much. I am your servant to do your will. The auxiliary has already made me acquainted with some very fine women, and I hope to meet, know and love many more of you. I want to close with a little tribute to a doctor's wife that came to my hand a short time ago.

"An Appreciation Dedicated to the Physician's Wife."

"Bless your soul because you are the silent partner of one playing the greatest rôle in life—that of relieving suffering humanity. You help him, encourage him and cheer him in a thousand different ways; answering the tintinnabulations of the door and telephone bells; keeping up with his calls, visiting the sick—an angel of mercy, as it were—and cooking the doctor's victuals if need be.

When, to the tune of Mendelssohn, you tripped down to the altar and became a doctor's wife, you took upon yourself a grave responsibility, for life itself often depends upon you, who are the unknown equation in the practice of medicine.

Your alertness in locating the doctor and your knowledge of emergency treatment has kept many patients on this side of the River Jordan.

This selfish old world of ours doesn't give very much credit but you are an unheard of Florence Nightengale; although not on the battlefield of war, you are carrying on by assisting the doctor to combat disease on the daily battlefield of Life and Death.

"Bless your soul."

We cannot see the end of the way,
  That winds and climbs and falls,
Not even the portion set for today,
  Nor what next hour befalls,
But with face to the breeze, and with steady
    head,
We can walk the road as it opens ahead.

We cannot fathom the ways of God,
  The why and how of life,
Often with questioning heart we plod,
  Through the land of tôil and strife,
But we can choose the best today,
And the best will lead in the Father's way.

STATE SOCIETY AUXILIARY

State Auxiliary officers, members of the Mercer County Auxiliary and representatives from other counties were present at a luncheon and business meeting of the Woman's Auxiliary to the Medical Society of New Jersey held January 10 at the Carteret Club in Trenton.

The meeting was called to order by the President, Mrs. George L. Orton, of Rahway, who used a silver mounted gavel presented to the auxiliary by its first President, Mrs. A. Haines Lippincott, of Camden.

Dr. Henry O. Reik was the guest of honor and made an inspiring and helpful address from which is taken a brief summary of topics: An urgent request that county officers acknowledge letters sent from the state office. Stressing the desirability of diligently reading the N. J. State Medical Journal. The following suggestions for county activities: Arrange for lectures to be given by Mrs. Taneyhill before local organizations. Call attention to radio health lectures every Friday at 8:30 p. m., WPG, Atlantic City. Organize membership drives; make 100% the objective. This is the only state with a Woman's Auxiliary in every county, and our task now is to strengthen our organization. One-third of the increased attendance at the State Medical Society meeting in June last was due to presence of the Woman's Auxiliary. The same explanation is given for an increase at various county society meetings. Look ahead for Legislative dangers. "We are looking ahead to the time when the women will be able to aid the State Medical Society by use of their power on election day." Numbers are needed to wield influence. While it is desirable to make meetings socially attractive to members, it is essential that some business be transacted at each meeting.

After Dr. Reik's departure the minutes of the meetings held in June, at Atlantic City, were read, and following this came the reports of officers of the Board.

A delightful diversion was made by some charming songs well rendered by Miss Helen Krams.

A rising vote of thanks was given to Mrs. William R. Little, Chairman of the Local Committee which arranged for the meeting.

Mrs. Mulford, Chairman of the Entertainment Committee, discussed possibilities and asked for suggestions for the coming meeting at Atlantic City in June, as the Committee on Arrangements of the State Society has asked the auxiliary what it would like in the way of entertainment.

Mrs. W. Blair Stewart, of Atlantic City, who was a Delegate from the State Auxiliary to the national meeting in Minneapolis, gave her report. We heard that 30 states were represented, 2000 women were registered, and that the national membership is 10,000. The various ways in which the wives of physicians can help, were given in the following suggestions: Read Hygeia; urge men to attend meetings; look after crippled children's work; see that public health films are used in the meetings of Parent-Teacher Associations; advocate the teaching of hygiene in schools.

Next came a discussion on the time at which dues should be paid, with the following result: It was moved, seconded and carried that elections should take place in October, and dues be paid Nov 1; an extension to February 1 being given under some circumstances. Mrs. Massey moved that a uniform notice of dues should be used throughout the auxiliary, the Treasurer, Mrs. Hunter, to decide on the form. Also moved that the County Treasurers make out reports in triplicate, the forms to be distributed by the State Treasurer. Both motions were carried.

A standing vote of thanks was tendered Mrs. Hunter.

A motion was made and carried that the travelling expenses of the State President, incurred in visiting the county auxiliaries, shall be paid out of the treasury; seconded and carried.

Mrs. Orton suggested that the executive body should hold another meeting in April so as to facilitate the work to be done at the annual meeting in June; this was adopted and the date set for April 18.

The reports of Presidents of the counties were read, and the usual discussion followed as to how to make more eligible members become interested enough to join. A few counties have such a fine percentage of membership that they have set a goal for the others. The workers in counties whose membership is discouragingly slow, comfort themselves with the saying that "Slow growth is strong growth" and are hopeful.

A suggestion was made that the Presidents, county and state, be elected for terms of 2 years, as the first year is taken up with learning the needs of the organiation and the best methods of meeting them, the second year can be one of accomplishment.

The meeting adjourned till April 18, 1929.

Atlantic County

Reported by Mrs. Lawrence A. Wilson

The Woman's Auxiliary to the Atlantic County Medical Society met in the Blue Room of the Chalfonte Hotel, Friday, December 14. Mrs. John F. Massey presided and gave a report of the year's work. Mrs. John Beckwith, Chairman Welfare Committee, unavoidably absent, sent her report to be read by the Secretary.

The following officers were elected for the year 1929: President, Mrs. Samuel Salasin; First Vice-President, Mrs. Joseph Poland; Second Vice-President, Mrs. Ward Scanlon; Recording Secretary, Mrs. Lawrence A. Wilson; Corresponding Secretary, Mrs. Maurice Chesler; Treasurer, Mrs. Robert Bradley.

Installation of the President and other officers followed.

Mrs. Salasin, on behalf of the auxiliary, presented plants to Mrs. Massey and Mrs. Kaighn, after which, at the request of the Past-President, Mrs. Salasin spoke a few gracious words in regard to her future office.

Mrs. Guion and Mrs. Blair Stewart sent their regrets at being unabe to attend the meeting.

A social hour followed the business.

January Meeting

Reported by Mrs. Maurice Chesler

The Woman's Auxiliary of the Atlantic County Medical Society held its first meeting of the new year at the Chalfonte Hotel, Friday evening, January 11, Mrs. Samuel L. Salasin, President, conducting the meeting and appointing committees for the ensuing year. The appointments are: Educational Welfare Committee: Mrs. John T. Beckwith, Chairman; Mrs. David B. Allman, Mrs. Robert A. Kilduffe, Mrs. Sidney Rosenblatt, Mrs. Charles D. Sinkinson, Mrs. Edward H. Mason, Mrs. Percy Joy, and Mrs. Edward Uzzell.

Social Committee: Mrs. Milton S. Ireland, Chairman; Mrs. W. Blair Stewart, Mrs. E. H. Harvey.

Legislative Committee: Mrs. Edward Guion.

Membership Committee: Mrs. Robert Grier, Chairman; Mrs. Elmore Hess, Mrs. Samuel Gorson, Mrs. M. H. Axilrod, Mrs. Myrtle Frank and Mrs. Hilton S. Read.

Very interesting reports were given by Mrs. John T. Beckwith, Mrs. John Massey and Mrs. W. Blair Stewart who attended the Executive Board Meeting of the New Jersey State Medical Society held at Trenton.

Plans were made for a card party to be held soon, the proceeds to be used for supplying needs in the Children's Ward of the Atlantic City Hospital.

Those present were: Mrs. Hilton S. Read, Mrs. John Massey, Mrs. John T. Beckwith, Mrs. Louise Whealton, Mrs. David B. Allman, Mrs. Joseph Poland, Mrs. Samuel L. Salasin, Mrs. Robert A. Kilduffe, Mrs. W. Blair Stewart, Mrs. Samuel Gorson, Mrs. Robert A. Bradley, Mrs. Lawrence A. Wilson and Mrs. Maurice Chesler.

Bergen County

(Reported by Mrs. Edw. Clarke, President)

The regular monthly meeting of the Woman's Auxiliary to the Bergen County Medical Society was held on December 11 at the Nurses' Home of the Englewood Hospital; about 20 members gathered to enjoy a musicale and tea. The program consisted of many delightful selections rendered by Mrs. Hester, soprano, and several enjoyable numbers by Mrs. Smallbein, elocutionist. Another added pleasure was a surprize visit from Mrs. E. C. Taneyhill, our new State Field Secretary, who brought us encouraging reports and news of other auxiliaries.

January Meeting

Reported by Mrs. David Corn

At the last meeting of the Woman's Auxiliary to Bergen County Medical Society, held at the Heigh-Ho Tea Room, January 8, there were 30 members present for luncheon and meeting. This was followed by a Benefit Bridge Party, open to the public, to raise funds for the Anti-diphtheria Campaign. The proceeds netted a profit of $88. A brief talk by Dr. Spencer T. Snedecor on "How the money for this campaign is to be used" completed the afternoon.

Gloucester County

Reported by Mrs. H. B. Diverty

The Woman's Auxiliary to the Gloucester County Medical Society was the guest of the Medical Society at its meeting and luncheon, held at the Woodbury Country Club January 17, to hear Dr. Frank C. Hammond, of Philadelphia, who is Dean of Temple University Medical School.

Dr. Hammond spoke on "Medical Ethics and Pastoral Medicine". His talk was very interesting and instructive. Each society was well represented. As a whole, the affair was a great success.

Hudson County

Reported by Mrs. Harry J. Perlberg

Over 200 members and their friends participated in the monthly gathering of the Woman's

Auxiliary to the Hudson County Medical Society, the occasion being a public card party which substituted for the usual social afternoon. The proceeds of the "party" are to be used to augment the fund set aside for maintenance of the philanthropic activities of the society.

An attractive prize was allotted to each of the 50 tables of bridge. After games, refreshments were served.

The success of this, the first real large affair of the organization, was due to the untiring efforts of the committee, headed by Miss Ann Hetherton, assisted by Mrs. J. Binder, Mrs. P. Maras, Mrs. C. Kelley, Mrs. A. Perkel, Mrs. H. J. Perlberg, Mrs. George Culver, along with the enthusiasm of the members of the society, who now number 71.

The activity of the organization is causing a considerable influx of new members and it is believed that within a very short time the majority of physicians in the county will be represented by at least one member of their family, membership being open to wives, mothers, daughters and sisters.

Union County

Reported by Mrs. H. V. Hubbard

While the Union County Medical Society met in the Elizabeth General Hospital Wednesday evening, January 9, the Woman's Auxiliary met in the home of Dr. and Mrs. P. DuBois Bunting, 712 N. Broad Street, Elizabeth, Mrs. F. A. Kinch, of Westfield, the President, being in the chair.

Two important changes were made in the By-Laws; one made the Past-President, who has just vacated the chair, a member of the Executive Board; the other created the office of President-Elect, who will also be a member of the Executive Board.

After other routine business, Mrs. A. Haines Lippincott, Past State President, was introduced, and addressed those present on the "Problems of Auxiliary Work." She pointed out how the wives of doctors, organized and individually, can help the medical profession to spread knowledge of the best ways for people to care for their health, sick or well. Not only should the knowledge be spread of the best and most reliable means for people to regain their health, but people should be also taught to keep eternally vigilant when apparently well, and detect the first indication of anything wrong, organic troubles especially. All doctors agree that a very early diagnosis means, in most cases, assurance of recovery for the patient. Mrs. Lippincott also stressed the opportunity our members have to help the medical profession when they serve on the executive boards of other women's clubs and organizations and through them spread the right propaganda and correct false information.

At the close of the meeting dainty refreshments were served by the hostess.

The next meeting will be held in Plainfield at the home of Dr. and Mrs. H. V. Hubbard, on the second Wednesday evening of April.

Several of the members are planning to attend the next State Meeting in Atlantic City early in June; and the National Meeting in Portland, Oregon, later in the same month.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M. D., Reporter.

The regular monthly meeting of the Atlantic County Medical Society was held Friday evening, January 11, at the Hotel Chalfonte, Atlantic City. Minutes of the last meeting were read and approved.

Report of the Committee on Public Health. Dr. W. B. Stewart reported that Dr. Reik has had a satisfactory response from members who are willing to broadcast public health talks. He is provided for the next 3 months; but would like more for the future. Dr. Stewart stated that the A. M. A., the State Society and our County Society have endeavored to educate the public about medical matters and to warn it about the dangers of self-medication with patent medicines. He spoke about the great amount of patent medicine advertising in the newspapers. Recently one edition of a local paper carried 154 in. of patent medicine advertising. In contrast to this, he showed an advertisement in the same paper of the Atlantic City Drug Club, composed of the reputable druggists of Atlantic City, which urged the public when sick to seek competent medical advice and warned against self-medication.

Dr. Stewart also spoke about the unnecessary extension of the traffic light system in lower Chelsea and in the Inlet district. He said that it resulted in unjustifiable delays to physicians' cars. Many of the lights in the less busy streets of the city are useless. He thought that there should be no lights above Massachusetts Avenue or below Florida Avenue.

Dr. Scanlon disagreed that lights are not necessary in lower Chelsea. He spoke of the danger to pedestrians in this district. He said that many automobilists have not manners enough to give the pedestrian a chance to cross the street. He thinks that they are not necessary on Melrose Avenue.

Dr. Kaighn moved that a vote of commendation be sent to the Atlantic City Drug Club for that excellent advertisement. Seconded and carried. He thought that we should not criticize the Atlantic City newspapers too harshly because they have been very courteous to this society.

Dr. Stewart said that his remarks were not meant to be a reflection on the Atlantic City newspapers; but were meant to show what the patent medicine interests are doing in the press of the country.

Report of the Library Committee. Dr. W. E. Darnell reported that a very large number of valuable books just published have been put on the shelves.

Dr. Barbash moved that the visitors be made honorary members of the society for the evening. Seconded and carried.

A letter of resignation, from Dr. B. B. Filer, was read. It was moved that his resignation be accepted. Seconded and carried.

The treasurer stated that his annual report will be presented at the February meeting. He announced that the membership of the society consists of the following: 127 active members, 6 associate and 1 honorary member.

Dr. Stewart said that our state representation depends upon the paid-up membership at the

end of January and he urged all members to pay their dues promptly.

Mr. T. L. Husselton, of the Atlantic City Chamber of Commerce, gave a talk on the "credit rating service" of that body, showing the advantages of that service to the Medical Profession of Atlantic City. He also stated that the sale of Christmas Seals was being investigated.

President Joseph Poland announced the following committees for the new year—Public Health: W. B. Stewart, chairman; E. H. Harvey, N. J. Quinn. Library: W. E. Darnell, chairman; H. L. Harley; D. W. Scanlan. Entertainment: J. H. Mason, chairman; S. Rosenblatt; W. J. Hudson.

Scientific Program

Dr. Philip Marvel, Jr., reported "A Case of Coronary Occlusion", giving first a short résumé of the condition.

W. S., aged 63. Mother died of apoplexy, age unknown. Father died of bladder stones. One brother and 1 sister died of tuberculosis. One brother and 1 sister living and well. Married 38 years; 1 daughter and wife living and well. No alcohol for years; moderately before that. No tobacco. Typhoid at age of 39, lasted 3 weeks. Rheumatism 47 years ago; lasted 2 years. Gonorrhea 3 times about 25 years ago. No history of lues. No history of sternocardia or acute indigestion.

Patient was seized during night of September 20, 1928, with a pressing, burning pain, radiating down the left arm to the wrist and down the right arm to the elbow. At 7 a. m., as the pain was no better, he drove to Dr. Irwin's office. Was given morphin sulph. gr. ¼ which relieved him. Sent home to bed. Felt well during the day and would not stay in bed. That afternoon had a recurrence, this time morphin relieved him only partially; but the pain gradually stopped. The morning of 23rd, had another attack of pain which was only partly relieved by morphin; when seen at 3.30 p. m. condition was as follows: grunting for breath and complaining of pain at left base of neck, pale and in cold sweat; pupils equal and regular, reacting promptly to light and accommodation; many carious teeth, considerable pyorrhea, tonsils enlarged and cryptic, pharynx injected; tenderness over left supraclavicular region and around base of neck to back; breathing rapid shallow grunts—no impairment of percussion note over lungs, breath sounds vesicular and bronchovesicular, many crackling râles over both bases posteriorally and occasional scattered râles over upper lobes.

Heart. Left base 12 cm. in fifth space, right base 3 cm. in fourth space. Area great vessel dullness 6 cm. Heart in auricular fibrillation with apical rate 180, radial rate 122, deficit 58. The sounds were of poor quality. No murmurs could be made out. The arteries were somewhat thickened but not tortuous. Blood pressure 106/82.

Patient sent to hospital and when seen there a couple of hours later, heart rhythm was regular, sounds of fair quality, the second sound being short and snappy. Rate 120. When seen about midnight patient was again suffering from pain and heart was again in auricular fibrillation. The cardiac rhythm was regular except for occassional premature contractions. White count 16,200; polys. 85%; urine acid, Sp. Gr. 1.024, albumin less than 5 mgm %, occasional fine granular casts, and 2 to 8 W. B. C. per low power field. Later in the afternoon the heart again went into auricular fibrillation. September 28, condition showed some improvement during the last 48 hr.; still complains of some pain about base of neck, but cardiac rhythm has remained normal with a rate about 100; blood pressure 106/78; Temp. 98.4°. September 30, patient had another spell of fibrillation. That night had another attack of substernal pain with definite sense of oppression, requiring morphin to relieve it.

October 2. No pain since yesterday. Appears better although he does not feel better. Blood pressure 110/67. Pulse regular. At 3.30 p. m., was discovered to be unconscious and to have a complete left sided hemiplegia. When seen 1½ hr. later was in coma; temp. 98°; pulse 144, regular; blood pressure 110/68. October 4, gradually getting worse, rouses at times, heart weaker, temperature going up. October 5, in coma all day. Gradually increasing edema of lungs. Died at 5.40 p. m.

Autopsy showed: The heart, which was somewhat enlarged, presented on its external surface gross evidence of marked fibrinous pericarditis. The myocardium showed a definite decrease in muscle tone and, in the apical region, a yellowish scar probably due to infarctions following coronary occlusions. There were no gross valvular lesions nor marked evidence of aortic sclerosis. Heart muscle specimen consists of a portion of the left ventricle adjacent to the apex, which shows a narrow yellowish band about 0.5 cm. wide and about 5 cm. long which roughly parallels the curve of the apex. By chance one section cuts transversely a terminal branch of the coronary artery which is seen to be markedly sclerotic and partially occluded. The contiguous muscle shows marked fatty degeneration and necrosis. If the process had become more extensive, the so-called "tiger-lily heart" would have been produced. As to the cerebral accident causing this man's death, we can only surmise, as there was no permission to open the head. It was of course thrombosis or embolism.

The next paper was read by Dr. Harold E. B. Pardee, Professor of Clinical Medicine, Cornell Medical School, on "Arteriosclerotic Heart Disease". This paper was extremely interesting and as Dr. Pardee has promised to let us have the written paper for The Journal, it will not be reported here.

Discussion

Dr. Marvel said that he enjoyed Dr. Pardee's paper very much. He stressed the importance of auscultatory percussion in determining the borders of the heart more accurately in these cases. He agreed with Dr. Pardee about the danger of moving patients during attacks. He said that in his case the home conditions were such that it seemed better to move him anyway. He was given morph. sulph. gr. 1/3, atrop. sulph. gr. 1/100 and scopolamin gr. 1/200, and slept during the trip and when he reached the hospital, his heart, which had been fibrillating was found to be regular.

Dr. Samuel Barbash said that Dr. Pardee did not mention diathermy. In cases of diffuse fibrosis, given over several months, his patients have improved markedly. The object is to increase the local blood supply. It is a valuable adjunct and will become popular. In regard to edema, he questions whether it is purely cardiac. He has had several cases in which putting them on a salt-free diet, has resulted in disappearance of the edema. He does not know how much it prolongs life, for they died suddenly. However, they were much more comfortable while they lived.

He had a case a year ago with marked edema and bilateral pleural effusion of a year's duration. Ten days after putting him on a salt-free diet he was water-free and is still well.

Dr. Harold Davidson asked Dr. Pardee if he had any experience in treating mild but annoying arrhythmias with quinin sulphate and sedatives.

Dr. Clarence Andrews said that the pain of coronary occlusion is more severe than ordinary angina. He thought that death in Dr. Marvel's case was probably due to cerebral thrombosis. He spoke of the importance of rest in cardiac cases. Many patients are sent to Atlantic City to finish convalescence. When they get here they immediately begin to walk on the Boardwalk and soon feel as badly as ever. He advised the use of small tonic doses of digitalis, nitrites and strychnin to tone up the vasomotor system.

Dr. Ward Scanlan said that a year ago he heard Dr. Joseph Sailer say that you should not give morphin in coronary occlusion; does not see why this is so. He spoke of the numerous heart cases in people who cannot afford to stop work. He thinks that the sedatives, particularly luminal, are almost as good as digitalis in some of these cases. He asked Dr. Pardee what his favorite form of intravenous digitalis is.

Dr. Pardee, closing the discussion, said that the salt-free diet and restriction of fluids are important in serious edema. He has not used quinin in arrhythmias. Dr. Andrews' expression "ordinary angina" should be revised. People mean different things when they say "angina". It is better to call it an anginal syndrome. There are degrees of pain. Angina pectoris means only pain in the region of the heart. "Tonic doses of digitalis" is interesting. The drug acts only when in a certain concentration in the body. This concentration can be produced suddenly or slowly. Probably the tonic dose acts by producing this concentration slowly as it is not readily excreted. He has no one favorite intravenous digitalis preparation. There are 3 preparations—digifoline, digalen, digitan—and he does not know of much difference among them.

General Staff of Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The monthly scientific meeting of the General Staff of the Atlantic City Hospital was held December 21, 1928, presided over by Dr. D. Ward Scanlan, President.

Due to the illness of Dr. Clarence L. Andrews, Chief of Medical Service, the medical report was submitted by Dr. Hilton S. Read, assistant.

Following a statistical résumé, which included the months of August, September and October, a very concise and comprehensive discussion of the mortalities was presented, especially emphasizing the symptomatic expression of the disease and the physical findings with comparison to the pathologic findings at necropsies. The following salient features were outlined in a paper on "Atypical Pneumonias":

In the introductory remarks Dr. Andrews stressed the importance in ever practicing the art of inspection, palpation, percussion and auscultation, because clinical, laboratory and x-ray facilities may not always be available. The typical pneumonias he divided into 2 main groups. First, the lobar pneumonias in which one or more lobes are completely involved, and, secondly, the lobular or bronchial pneumonias in which small areas or patches of consolidation occur in some or all of the lobes. In many instances they shade one into the other to such a degree as to almost defy differentiation. However, each is distinct and characteristic when typical.

Lobar pneumonia usually begins very abruptly, with a definite chill or chilly sensation lasting 10-20 minutes, with pain in the involved side. Respirations are increased to 30 or more and are quite shallow, with a tendency to end in an expiratory grunt. Pulse is rapid and bounding, but there is usually no change in cardiac dullness or blood pressure at the outset. The temperature rises rapidly to 103° or more with very little remission during the 24 hours. There is usually a shallow cough which is at first nonproductive, but soon there is a blood-tinged or rusty sputum brought up. Within 12 to 24 hr. all symptoms become more pronounced and the patient presents an anxious face.

On physical examination the following features stand out: A tendency for the cheek on the affected side to become flushed or reddened, with expansion of the nasal opening during inspiration on the same side; decrease in chest expansion on the involved side; respirations rapid and usually end in an expiratory grunt. On percussion there is beginning dullness over the affected lobe or lobes, with hyper-resonance over the uninvolved areas: no change is found in cardiac dullness, as a rule. On auscultation the breath sounds are short, shallow and bronchial in character over the involved portion, with compensatory or forceful breathing over the uninvolved lobes; fine crepitant râles are also heard over this area with an increase in both the spoken and whispered voice; heart sounds are usually clear and forceful with the pulmonic second increased.

In typical bronchial pneumonia the onset is quite different. Instead of sudden, there is usually a gradual onset with rise in temperature which varies a great deal during 24 hr. It occurs also either following an uncorrected attack of acute bronchitis or develops as a complication to some of the acute infectious diseases, like measles or whooping cough. Therefore, the onset is quite insidious and one has to really be on the outlook in many cases to determine just when the pneumonic process begins. However, the following features are the rule: The previous acute bronchitis gets worse rather than better, or during an acute infection in which all has gone well the pulse becomes quite rapid; respirations go up to 40 or more and general condition of the patient looks worse than the infection itself should produce; degree of cough in any case depends largely upon the type of bronchitis, but is usually quite troublesome.

On palpation, in bronchial pneumonia, very little is made out except an increase in the spoken voice over the small involved areas.

On percussion small areas of impaired resonance may be made out, but they are not distinct like those found in lobar pneumonia and frequently change in character from day to day or may change during the same day; that is, they are more apparent at one examination than at another.

On auscultation râles of a mixed variety, fine and subcrepetant, are heard and increase on coughing; small areas of bronchial breathing are also usually heard with an increase in the spoken and whispered voice over the involved patches.

Atypical pneumonias. These may be classified

under 2 main headings; those cases which are atypical because of unusual mode of onset; and those which are atypical because of non-classical symptoms and physical findings. Under atypical cases due to modes of onset, 3 interesting groups stand out: (1) Pneumonias which occur in children under 2 yr. of age are always bronchial in type, yet they begin abruptly with a chill or a convulsion; with a sudden increase in respiration and a rise of temperature not unlike the description just given for lobar pneumonia. Upon examination such meager physical signs may be found that the attendant who has his thoughts centered on lobar pneumonia may diagnose the condition as simple bronchitis and not realize the gravity of the condition until too late. (2) Senile pneumonias, or those cases which occur in the aged and feeble as a terminal complication in such diseases as diabetes, heart disturbances and kidney diseases, are very insidious both as to symptoms of onset and physical signs present and may be completely over-looked by the doctor owing to the great prostration present and general constitutional symptoms. (3) Lobar pneumonias which occur in children above 2 yr. of age, instead of beginning with a chill or chilly sensation with pain in chest, which is so characteristic of adults, often begin with an attack of vomiting and abdominal pain and may be diagnosed as appendicitis or the child may be so delirious and present such nervous manifestations of head and spine that the condition is thought to be meningitis. In a series of 145 cases reported by Kerley, over 4% of the nervous group were diagnosed as cerebrospinal meningitis and 17% of the vomiting group as appendicitis. If a thorough examination of every chest is made this should not occur.

Under atypical pneumonias because of their departure from classical signs and symptoms, several types stand out: (1) Lobar pneumonias when examined quite early may show a tympanitic note on percussion over the involved area instead of flatness. However, the rest of the lung is usually resonant and should put one on guard. (2) In cases where the lesion is deep or interlobular it may be hyper-resonant upon percussion and mislead one. (3) Bronchial pneumonias, particularly those occurring in so-called grippe infections, may not present any physical signs of consolidation at all; except there may be a total absence of breath sounds over the affected area; with very little impairment of the whispered and spoken voice. (4) Bronchial pneumonias may occur as a part of grippy condition with pains in limbs and body generally, without the slightest subjective evidence of a cold, cough or bronchitis; all one finds on examination is a red throat and small patches of beginning involvement about the angle of the scapula; very often a few fine crepitant râles which increase upon coughing and a temperature of 100° to 102° which cannot be explained otherwise.

Summary. Types representing almost all of these groups are admitted to the hospital every year. Many are wrongly diagnosed by men who have had considerable medical experience, simply and entirely because sufficient time and care have not been given to the chest examinations. Interns just out of school miss fewer chest conditions than do experienced doctors because a routine examination is insisted upon and the chiefs do not accept the cases till the intern has committed himself.

With the foregoing in mind then, there is but one safe thing to do: Examine every case carefully, with chest stripped to the waist, and repeat it daily till a satisfactory explanation for the symptoms and fever can be made out. Remember that it is not what your idea of a lobar or bronchial pneumonia should be that counts, but it is the comparative differences between the various parts of the chest you are examining that may depart from the normal in some way. Moreover, do not allow the individual with aching pains to persuade you that he has not pneumonia because he has not the slightest semblance of a cold, when you mention his chest findings, nor the mother to insist upon the child's trouble being abdominal because he has stomach pains and is vomiting. Go over the entire body carefully and then, and not till then, say the condition is not in the chest because that part is normal. Typical pneumonias are perhaps the easiest of all of the acute diseases to diagnose and the atypical the most difficult. Therefore, it is the unusual ones that are of the greatest economic importance and invite our most careful attention.

A statistical survey of the otorhinolaryngologic service, from the clinic of Dr. C. C. Charlton, was presented by Dr. S. E. Dalton, assistant. This service comprised the months of May, June, July and August and a total of 673 cases were treated.

Dr. C. C. Charlton, Chief of Service, presented a general survey of the routine house service; continuing the report of his service with a discussion on, "Cancer of the Larynx" and "Electrocoagulation of Tonsils".

Dr. Charlton presented a case of carcinoma of the larynx in a man 70 years of age. The salient symptoms were "hoarseness extending for a period of 1½ years", and marked emaciation. On physical examination the left side of the tongue at the conjunction of the middle and posterior thirds showed an irritated node about the size of a pea; also fixation with an infiltrated mass of the right vocal cords. There was marked metastasis, with ulcerations, making the case inoperable. The importance of an early diagnosis was stressed and the early symptoms of laryngeal cancer emphasized.

In cancer of the larynx the greatest thing is an early diagnosis. It is not a rare condition but happens frequently.

Early symptoms of laryngeal cancer: (1) Continued hoarseness without cough or other known causes. (2) Age, 40 yr. or above. (3) Sudden sharp pains in pharynx, larynx or ear. (4) Loss of movement of vocal cord. These symptoms should always arouse the physician and he should see that his patient gets into the right hands at once.

Syphilis, tuberculosis and perichondritis may give the same symptoms but they may be ruled out by examination and laboratory tests. The cause is not kr wn, chronic inflammation seems to play a part. Tobacco users more frequently develop it; males more often than females.

The general prognosis of cancer of the larynx is bad. If you get the patient early and operate for intrinsic cancer the results are fair, but in the extrinsic you cannot promise much.

Electrocoagulation of tonsils. In his introductory remarks Dr. Charlton stated that the wholesale and indiscriminate removal of tonsils in this manner was not approved by him, but he felt that when necessary this method was one of choice and involving the least amount of

danger to the patient. The cutting operation has its advantages as well as its disadvantages and in patients 40 yr. of age and over it entails a more serious procedure, especially if performed under general anesthesia. He advises its use in children and in young adults who present no contraindications. Other bad results from the cutting operation under general anesthesia that may follow are: bleeding, with aspiration into lungs, causing lung abscesses; pneumonia; nephritis; and cardiac trouble.

Myerson examining with the bronchoscope cases operated on under general anesthesia, found over 75% had blood and mucus in the trachea.

Now, if there is some method of leaving the capsule intact, eliminating the risk of general anesthesia and its complications, and preventing impairment of function to tissues and voice, it should be of interest to the whole profession and to every person with bad tonsils.

The work can be done in your office. It does not require the patient to be sent to a hospital. Neither do they, as a rule, need to give up their occupation or miss any social functions if you do it in stages, in place of trying to do it all at one treatment; which he never advises.

You may have the patient sitting in a chair or lying on a table, whichever you prefer. Local applications of anesthetic to deaden the mucous membranes of tonsils, palate, root of tongue and pharynx, in order to make it painless and prevent gagging. Sometimes gives a hypodermic in case a person is highly nervous but rarely is this necessary. He has also injected a local anesthetic behind the capsule but this is not needed and should you do it you are more liable to coagulate too deep and interfere with results by having destroyed some of the capsule with too large a slough.

If your technic is carried out correctly and you have the proper machine for doing the work your results will be most gratifying. The surfaces will be smooth, no adhesions, practically no scar tissue, no deformity, no loss of voice function, no granulation tissue, no bleeding, and a painless procedure with a most grateful patient.

CAMDEN COUNTY

R. E. Schall, M.D., Reporter

A joint meeting of the Camden County and Camden City Medical Societies was held Tuesday, January 8, the meeting being called to order by President Day of the County Society. After reading the minutes of the previous meeting, and transaction of business for the county society, the chair was turned over to Dr. Bentley, President of the City Society.

The following officers for the City Society were elected for the year 1929: President, Irwin E. Deibert; Vice-President, George P. Meyer; Secretary, Robert S. Gamon; Historian, W. J. Barrett.

Dr. Samuel Bradbury, of the Pennsylvania Hospital, Philadelphia, presented a very instructive and interesting paper on "Dispensary Work in Connection with Hospitals". He said that people will get what is best for them either from the family physician or in the dispensary. The first dispensary was opened in London in 1755, for dispensing drugs, but after a time it was found necessary to have a doctor there to give medical advice. The first dispensary in this country was established in Philadelphia in 1756. A certain number of persons applying for free treatment are able to pay. In 1910, the New York County Medical Society made a canvass and found that 2% of 750 cases of dispensary patients investigated were able to pay; in Boston, 2 to 5% were found able to pay. The rich and the beggar get the best medical service. About 2/3 of the population needs some medical care during each year. The patient should, and usually does, pay part of cost of the service rendered in the dispensary.

The cost to the Pennsylvania Hospital last year was about 95 cents per visit, without allowing for the doctor's service. The daily average at the Pennsylvania Hospital is 300 to 400 patients.

The outpatient work is more valuable to the doctor and the student than ward cases, as they see a greater variety of diseases. The medical staff of the outpatient department deserves more credit than it usually gets. The chief of the department should be in attendance at least one afternoon a week.

We should have centralization for admittance of patients, all data being kept at one desk, to avoid patients going from one department to another. No more patients should be admitted than can be taken care of by that doctor in the time allotted; they should be instructed when to return and not permitted to return sooner than necessary. We know very little about the ambulatory diseases. Some patients attend 3 or 4 sections of the clinic in a day; they may get duplication of medicines; this is avoided by a centralization for records.

A good social worker is a help to a clinic. She should be given information as to whether the patient will ever be able to work; or how long he is liable to be off work; or whether he will ever be able to do his usual work again; as such information helps the investigator to make a satisfactory disposition of the case. If patient is found to be temporarily disabled, he can be cared for at home or in a hospital; if permanently disabled, a different disposition might have to be made of the case.

Discussion

Dr. Casselman: Most social workers do not find a patient able to pay; as they are generally socialists. The class of patients we see in the clinic, we usually do not care to see in our offices, as they cannot pay, and take up time we might use for our private patients. A good many doctors join a dispensary for advertisement.

Dr. A. H. Lippincott: I do not agree with Dr. Casselman that many doctors join a dispensary for the advertisement.

Dr. George Meyer: What is the future of the doctor in regard to this clinic work?

Dr. Decker: The work should be systematized. Some days the clinic is swamped with patients and other days there are no patients at all. I do not know what the future of the physician will be. The social worker should see that the patients return, so as to keep the work equalized.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

The Cumberland County Medical Society met January 15, as the guest of Newcomb Hospital, Vineland.

A committee was appointed to prepare resolutions on the loss by death of Dr. Mary E. Slattery.

Dr. A. Spencer Kaufman, of Philadelphia, discussed ::The Ear, Nose and Throat Complications of Influenza". He said that the present epidemic is not true influenza. There are no sudden onsets with rapid ending in death. The infection begins with nose and throat and extends to ear or lungs and cannot be aborted in 1 or 2 days. The usual formula for drying up a watery discharge, as a common cold, is without avail; does not believe in use of coal tar remedies. The system should be thoroughly alkalinized, for which purpose the citrus fruit juices are suitable, or the citrocarbonates or calcidin may be given to saturation. Efforts should be made to prevent involvement of the nasal sinuses, by using astringent washes and ephedrin. He does not recommend suction treatment in acute cases because it may increase the congestion and obstruct flow of discharges. If the tracheal cough is dry and severe the injection of silver salt into the trachea will lessen irritation.

The ear drum should not be incised when membrane is retracted, which is due to vacuum. If done, infection may be sucked into the middle ear. Let an ear abscess drain for 24 hours, then irrigate canal with saturated solution of boric acid or sod. bicarb. to encourage drainage. Keep ice bag to head until inflammation subsides.

Dr. David Allman, of Atlantic City, discussed the subject "Cryptic Injuries". He emphasized the necessity of taking x-ray pictures in all cases, and that all doubtful cases be kept under observation for the protection of the doctor as well as patient. In case of pelvic injuries, always catheterize the patient if the bladder is not emptied within a reasonable time.

The next meeting will be held in Bridgeton and an invitation will be extended to other societies of this district to meet with this society.

ESSEX COUNTY

Earl LeRoy Wood, M.D., Reporter

War against any lowering of the standards under which certified milk is produced and sold was declared at the meeting of the Essex County Medical Society held Tuesday evening, January 15, 1929, in the auditorium of the Academy of Medicine, 91 Lincoln Park, Newark, N. J.

In a resolution which designated the sanction of the production of so-called "pasteurized certified milk" as "a misbranding and falsification, a misuse of the term certified, and a fraud upon the public", the society sought to nip in the bud a movement said to have been started by dairy interests to produce a pasteurized milk bearing the name "certified" in all parts of the country.

The resolution was introduced by Dr. Elmer G. Wherry, acting for the Essex County Medical Milk Commission, the parent of nearly 100 such commissions in America and Europe.

Dr. Wherry traced the history of certified milk from its conception in the mind of the late Dr. Henry L. Coit, of Newark. He emphasized the fact that the value of certified milk lies in its cleanliness of production and the fact that it is raw. Valuable vitamins are destroyed in pasteurization, Dr. Wherry said.

He declared a movement to allow the term "certified" to be used in connection with pasteurized milk has gained headway in Boston and urged every effort be made to prevent sanction of such use.

The American Association of Medical Milk Commissioners has already acted on the matter, Dr. Wherry said, and has asked member organizations to demand the term "pasteurized certified milk" not be approved anywhere in the country.

Approval of Dr. Wherry's recommendation was voiced by Dr. Frank W. Pinneo, Secretary of the society. Originated and still entirely controlled by medical authority, certified milk should be kept up to its high standard as the best of all forms of milk, he said.

"Essex County was the cradle of certified milk," Dr. Pinneo said, "and we must do all in our power to prevent such lowering of the standards as is now threatening. It would overthrow most of the work that has been done and abolish the value of the term 'certified', which indicates clean, raw milk."

He told of an actual test by physicians with more than 200 babies in which raw and pasteurized milk had been used. The certified milk produced a gain in weight of 14% compared to much lower gains with pasteurized milk.

The resolution read as follows:

"Be it resolved that we regard the action of any medical milk commission in putting out under its seal and approval of so-called 'pasteurized-certified milk' as a surrender of the principles established by Dr. Henry L. Coit, a misbranding and falsification as regards the milk itself, a misuse of the term certified as applied to milk and a fraud upon the public, who have learned to trust the name and the system.

"Be it further resolved that this society unqualifiedly indorses the Essex County Medical Milk Commission in its efforts to maintain standards, to prevent misbranding of milk, and the misuse of the term 'certified'."

The following 14 physicians were elected members of the Essex County Medical Society: J. Frederick Close, 78 N. Arlington Avenue, East Orange; Charles H. Evans, 207 Harrison Street, East Orange; David P. Evans, 207 Harrison Street, East Orange; David H. Hersh, 234 Avon Avenue, Newark; Aaron Henry Haskin, 130 Hollywood Avenue, East Orange; Lyndon A. Peer, 1019 Broad Street, Newark; A. G. Reinfeld, 354 Clinton Avenue, Newark; A. A. Rubin, 433 Washington Avenue, Belleville; Edwin Arthur Seidmann, 580 High Street, Newark; Philip J. Trentzsch, 204 Berkeley Avenue, Bloomfield; R. D. Vreeland, Health Dept., L. Bamberger & Co.; Adolph Wegrocki, 228 Van Buren Street, Newark; Parker Willey, 11 Park Place, Bloomfield; Irving Dewey Williams, 433 Mt. Prospect Avenue, Newark.

Mr. Edward E. Rhodes, Vice-President of the Mutual Benefit Life Insurance Company of Newark, N. J., and recent President of the American Actuarial Society, delivered an address entitled "The Medico in Business". (To be published in the Journal later.)

In the discussion that followed, Dr. E. J. Ill expressed great interest in the cancer statistics.

He thought that the mortality figures for all members of families where 2 or more suffer from cancer, would be very high.

Dr. Emanuel D. Newman thought that much could be learned if the life histories of rejected applicants of life insurance were followed.

Dr. William R. Ward remarked that statistics are valueless unless they are compiled from a sufficiently large group. He stated that no class of individuals should be used for statistical purposes unless it numbered at least 1000. He commented on the mortality figures of a group with a tuberculous history and stated that blood spitting and pleurisy are of no significance if 10 years had elapsed since the last attack.

Dr. Charles D. Bennett quoted Joslin's observation that since the advent of insulin it takes a healthy man to outlive a diabetic.

Doctors A. W. Bingham, Guy Payne and E. W. Sprague also favored the meeting with their observations on various points considered in the address.

Academy of Medicine of Northern New Jersey
Eye, Ear, Nose and Throat Section

Earl Le Roy Wood, M.D., Secretary

On Monday evening, January 14, 1929, 25 members were called to order by Chairman Lee W. Hughes.

Dr. William McLean, F.A.C.S., exhibited a patient who had a cataract extracted 4 weeks previously by Barraquer's method; moving pictures of this patient's operation were shown. Dr. McLean described his training in Barcelona, in this method of cataract extraction, and compared its merits with other intracapsular methods.

The demonstration was discussed by Drs. Sherman, Holmes, Failing, Zehnder, O'Connor, Morgan and Donahue.

Mr. J. C. Reiss, President of the Guild of Prescription Opticians, described the purposes and ideals of that organization and the value of its ethical standards. (Paper will be published in full in a later Journal.)

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

At the regular monthly meeting of the County Medical Society Thursday, January 17, we heard an excellent address by Dr. Frank C. Hammond, Dean of the Temple University Medical School. Dr. C. I. Ulmer, President of the society, was in the chair.

Dr. Hammond spoke on "Medical Ethics and Pastoral Medicine", his talk eliciting an interesting general discussion. The physicians also engaged in a round table discussion of the present influenza and grippe epidemic.

Members of the society had the Woman's Auxiliary as guests at the meeting and luncheon, which was served by John Proctor, steward of the club.

Members present were: Drs. Hollinshed, Westville; Busby and Downs, Swedesboro; Krusen, Mullica Hill; Charles and William Pedrick, Glassboro; Knight and Burkett, Pitman; Black, Mickleton; Hunter, Westville; Fisler, Clayton; Stout, Wenonah; Hillegass, Mantua; Ulmer, Moorestown; Kline, Camden; Sinexon, Paulsboro; and Pegau, Underwood, Campbell and Diverty, Woodbury.

HUDSON COUNTY

M. I. Marshak, M.D., Reporter

The Hudson County Medical Society met at the Carteret Club, Jersey City, on January 2, with Dr. W. J. Sweeney presiding.

Dr. William P. Graves, of Boston, read the paper of the evening on "Detection and Prevention of Cancer in Women". Because of position and accessibility, every cancer of the female genital tract is curable if taken in time. Deaths are due to the insidious onset of symptoms, carelessness of the older women as to pelvic disorders, and the temporizing of family physicians.

Cancers of the genital tract occur, in frequency, in the following positions: (1) Uterine body; (2) cervix; (3) ovary and adnexia; and (4) vulva. Malignancies of the body are more frequent in the well-to-do, while those of the cervix occur in greater numbers among clinic patients. Dr. Graves stressed the advice that a biopsy curretage should be done on all cases of abnormal discharge from the uterus.

Cancer of the uterine body starts nearly always in the fundus as a polypoid growth of the endometrium; it slowly extends down toward the internal os. The next tissue attacked is the myometrium. At first slowly, with no increase in size of the uterus. After it reaches the peritoneum it effloresces on the surface of the uterus and extends rapidly to surrounding organs. Metastasis is rare by blood or lymph channels; the spread being nearly always by implantation, sometimes through the tubes. The rate of growth is very slow if it is not implanted into the vagina or ovary. Once the peritoneum is involved, the growth is very rapid. There is no dominant precancerous stage.

Such cancers are frequently associated with stenoses or atresias of the genital canal and occur in endocrine disturbances, old age, radiated organs or following ovariectomies. Cancers also occur in scars following childbirth or improperly performed reparative operations.

Graves is strongly opposed to routine hysterectomy for uterine bleeding of the aged. However, if a diagnosis of cancer is made, operation is imperative. Radium may stop the bleeding but the growth continues. In fact, the only place where radium is of value in these cancers is where vaginal implantation has taken place. In hopeless cases, he saw some hope in the combined use of colloidal lead and deep radiation.

Cancer of the cervix usually develops slowly, is readily accessible and the symptoms are easily recognizable. Because of the ability to "cross fire", radium therapy is of great value in these cases. Where differential diagnosis is difficult, a diagnostic biopsy is often essential. Child-bed trauma is the etiologic factor in 90% of these cancers; which fact points to the necessary prophylactic therapy; avoiding child birth injuries and making necessary repairs early and carefully. He quoted a large series of case histories studied which showed that relatively few cases develop in those women who had early repair after childbirth. He felt that these figures showed that early repair will prevent most if not all cervical cancers.

Most pathologists believe that in cancer of

the ovaries the lesion is malignant from the beginning. Graves believes that the "law of irritation" in cancer operates here as elsewhere. The irritation being due to chemical changes and long continued pressure within the cysts. Immediate removal of all cysts, as soon as diagnosed, will therefore prevent such malignancies. Most of these cancers appear after menapause. "There is no such thing as an innocent ovarian tumor."

Vulval cancer occurs usually in old age and has a fatal outcome, as a rule. There is an obvious precancerous stage of leukoplakia with agonizing pruritis. It metastasizes easily and widely. It is essential, therefore, to excise these areas early even if it be necessary to remove the entire vulva.

Drs. E. J. Ill, Dickinson, Margaret Sullivan, Miner, Kelly, Quigley, Trossbach, Acchernio, Rosencranz, Edgar Ill and Rittnauer discussed the paper.

The other guests present were Drs. Trossbach, of Hackensack; E. J. Ill and Edgar Ill, of Newark, and Dr. Grossman, of New York.

The Annual Dinner of the Hudson County Medical Society was held at the Hotel Pennsylvania, New York City, on the evening of Saturday, January 26, and was, as usual, a tremendous social success.

The speakers, after dinner, were Mr. Lloyd Paul Stryker, General Counsel of the Medical Society of the State of New York, and Dr. Charles Gordon Heyd, Prof. Surgery, New York Post-Graduate Medical School and Hospital. President William J. Sweeney was ably assisted in management of the proceedings by a committee composed of Drs. A. E. Jaffin, Joseph Londrigan, Maurice Shapiro, Charles V. Niemeyer, I. Gordon, S. A. Cosgrove and Harry J. Perlberg. The Toastmaster was "the one and only" Stanley R. Woodruff.

Among the special guests were: Ephraim R. Mulford, President of the Medical Society of New Jersey; J. B. Morrison, Recording Secretary, and Henry O. Reik, Executive Secretary of the Medical Society of New Jersey; State Senator Roy Yates, of Passaic County; Commissioner Arthur Potterton, of Jersey City; J. Golden, Asst. Supt. Jersey City Hospital, and D. S. Kealey, Supt. Schools, Hoboken, N. J.

Clinical Society, North Hudson Hospital

J. Africano, M.D., Reporter

The first regular monthly meeting of the year 1929 was held at the hospital Tuesday, January 8, with Dr. F. Pearlstein presiding. The report for December, 1928, was given by Dr. Tannert; 266 patients discharged as cured or improved, and 21 deaths; of the latter, 14 were surgical, 5 medical, 1 pediatric and 1 still-birth; 5 autopsies were performed. Announcement was again made of the Staff Dinner to be held Thursday evening, January 31, 1929. Dr. Klaus drew attention to the influenza epidemic, and stated that most cases need not be admitted to the hospital inasmuch as they can be treated just as well at home. Overcrowding the hospital with such cases will endanger the entire institution, break down the personnel, and be a great source of danger to the surgical and obstetric patients. Complications, like pneumonia, require admission.

Presentation of Cases

Duodenal ulcers (Dr. Lange): Case 1. B. B., aged 45, born in U. S. A., occupation painter, admitted Dec. 20, 1928, still in hospital. Diagnosis: Perforated duodenal ulcer. Family history irrelevant. Past History: Seven years ago had "lead poisoning" (?) with abdominal symptoms. Following this, attacks of "heart burn", relieved by bicarbonate of soda; burning sensation in the epigastrium occurred at irregular intervals and apparently not connected with taking of food. Luetic infection denied; moderate smoker; denies use of alcohol; bowels costive.

Present illness: Patient was apparently well until 5 days prior to admission, when he suffered from cramp-like pains about the umbilicus, accompanied by nausea, and vomiting of small amounts of bilious material. Went to bed that day; then was up and about until 9 a. m., Dec. 20, when after breakfast he was seized with a sharp pain in the epigastrium, followed by vomiting of food. Later in the day he was removed to the hospital and was operated upon about 5 p. m. No history of blood in vomitus or stool. Physical examination upon admission revealed: abdomen markedly rigid, with extreme tenderness over the entire wall; knee-jerks present; pupils equal but contracted, under morphin. Tentative diagnosis of general peritonitis due to ruptured viscus. At operation the entire abdominal cavity was found contaminated with stomach contents, which consisted principally of eggs; perforation about 6 cm. in diameter just beyond the pyloric ring in the anterior wall of the duodenum; wall about the perforation for about 1.75 cm. was indurated and edematous. The opening was closed by sutures and omentum sutured over this. Drainage was established in the right kidney gutter and into the pelvis by tube.

Postoperative: First 2 days clysis and intravenous glucose solution given; nothing by mouth. Temperature rose to 102.4°, and ranged 99° to 101.6° after the second day. Allowed fluid by mouth after the second day and after the fourth day cooked cereals. No vomiting following operation, nor any considerable distension.

Case 2. C. D., age 26, born in U. S., occupation baggage handler, admitted Dec. 10, discharged Dec. 30, 1928. Chief complaint: pain in upper abdomen. Family history: Father died of tuberculosis; no history of cancer. Habits: Moderate smoker; did not use alcoholic beverages; over-indulged in food.

Present illness dates back 2 years, when he had some vomiting attacks 2-3 hours after taking food; without pain or other discomfort. Was given treatment and relieved of symptoms for about 6 months. About 1½ yr. ago he began to have epigastric pain and vomiting; hunger pains before eating; after eating would be relieved for 2-3 hr., when pain recurred; relieved by taking bicarbonate of soda but this caused him to vomit. Vomitus never contained blood. No history of melena. Attacks occurred 2-3 months apart but during the last month they have occurred every 2-3 days. Has lost about 25 lb. weight during the last month.

Physical examination revealed: man of small stature; rather thin; tenderness in the epigastrium with maximum tenderness 1 in. downward and to left of tip of the right ninth costal cartilage; no masses felt. X-ray examination, Dec.

12, showed 35% retention after 6 hr.; stomach dilated; excessive peristalsis; finger print punch on pylorus. Diagnosis: Pyloric stenosis; possibly carcinoma.

Operation: Pylorectomy was performed Dec. 17 under ether; modified Polya anastomosis for ulcer found just beyond the pyloric ring, involving the anterosuperior margin of first part of the duodenum. On palpation the ulcer area was hard, indurated and adherent to the pancreas; contraction of duodenal wall appeared to prevent ready passage of contents from the stomach. Crater formation and proliferation into the lumen seemed absent; stomach dilated.

Patient's condition was excellent from immediately after operation to time of discharge; having only vomited on the second and fourth days. Discharged as cured on Dec. 30. Diagnosis: duodenal ulcer, chronic.

The specimen consisted of a section of stomach measuring 4 x 8 cm. with greater portion of the wall thickened and indurated; mucosa eroded in places, and elsewhere necrotic; muscularis fibrotic, with diffuse edema, congestion and round cell invasion; no histologic evidence of malignancy.

Comment. These cases show 2 results of duodenal ulcer. In the first: Perforation at first slight, with little leakage and nature's plastic efforts to repair the damage, only to be followed later, after a fairly good meal, by real massive leakage with general peritonitis; a general chemical peritonitis due to duodenal contents, proved by culture to be negative. The procedure adopted was chosen to save the patient's life and does not mean curing the ulcer.

In the second: Healing of an ulcer under medical care but with resulting deformity that caused pain and improper emptying of stomach. The procedure adopted in this case was not directed as a cure for ulcer, as advocated by some surgeons, but to remove a possible new growth and establish a more ready emptying of the stomach; all the time bearing in mind the infrequency of malignancy in this region. Removing the greater part of the antral portion of the stomach removes the stimulus to acid secretion; this being the basis for performing resection instead of the more common gastro-enterostomy for the cure of duodenal ulcer.

All cases of ulcer, be they of duodenum or stomach, should after operation be treated as patients still possessing ulcers or patients having the factors predisposing to ulcer formation. Of these factors we know little, yet, one cannot help but forbid the use of tobacco which apparently is a causative factor in production of symptoms similar to those of ulcer. Diet and other medical treatment can be directed by the internist.

Discussion

Dr. Klaus remarked that in the first case inversion and drainage was done because that represents the best surgical procedure. Gastro-enterostomy is inadvisable at this time unless a marked stenosis results from inversion of the ulcer. In the second case, a Polya resection raises the question—what is the best operative procedure to employ in gastric and duodenal ulcers?—for pyloroplasty, gastro-enterostomy with or without resection of the ulcer, and pylorectomy have each their indications, which can be determined only at the time of operation. Nor can it be stated in advance of operation which of these procedures is best suited to any individual case; one must decide that at the operating table. It is safe to say that one should attempt such a procedure as has the least immediate operative mortality but will remove the actual pathology and cause the least postoperative disability.

Dr. Sweeney thought that postoperative care is very important; attention to such matters as teeth, tonsils, tobacco, and alcohol, and he cited several illustrative cases.

Dr. Pearlstein showed the importance of taking an x-ray picture for location of air under the diaphragm in cases of perforated duodenal ulcers, and also the obliteration of liver dulness often seen in these cases.

Dr. Lange, in concluding, emphasized the fact that all ulcers, with the exception of the acute perforated ones, should receive a course of medical treatment first, and he also pointed out that 80% of duodenal ulcers are cured by gastro-enterostomy.

Thrombo-angiitis obliterans (Dr. M. Miller): V. B., aged 42, born in Italy, came to this country in infancy. Father died of cerebral apoplexy at age of 75; mother living, age 85. Patient had cerebrospinal meningitis at age of 14. Was in good health up to 2½ yr. ago, when he began to have a cramp-like pain in the calf of left leg while walking; pain would cease when he stopped walking. A short time later he noticed similar pain in the right leg. Condition became gradually more severe so that upon covering the distance of 1 block, it was necessary to stop and rest for 3 minutes. Complained of no night pains; but feared cold weather, because in winter all his toes became numb.

Physical examination: Can distinguish the contour of objects with his feet and toes; the toes cold and cyanotic. Posterior tibials and dorsalis pedis faintly palpable. Radials and brachials good. Posterior tibials disappear with legs in vertical position; in dependent position color begins to return in 15 seconds and is complete in 1 minute; in the vertical position feet do not become abnormally blanched and toes retain a definite degree of cyanotic color.

Treatment: Intravenous injections of sodium citrate twice a week, beginning with 36 and increasing to 72 gr. Postural exercise. The only improvement has been disappearance of pain and numbness in his toes; his gait at present must be guarded and slow in order to avoid the cramp-like seizures in his legs.

This case is of particular interest because he had been treated for flat-feet, rheumatism, chilblains, and ingrown toe nails. The diagnosis is made by the intermittent claudication type of pain and disappearance of pedal pulses with the legs in vertical position.

Thrombo-angiitis obliterans (Dr. Kuhlmann): The object of this demonstration is to call attention to an unusual mode of onset, which I have not found mentioned either in numerous articles dating back to 1913 nor in standard text-books, even that by Buerger himself. The patient is a motorman in the Manhattan tubes, aged 30, and of non-Hebraic descent, who entered the clinic Aug. 8, 1927, stating that after an alcoholic debauch he woke up in the morning with numbness and paralysis in the left foot. Examination showed a typical drop-foot both in the manner of walking and in his inability to dorsally flex the member. There were no sensory changes, but a distinct lowering of temperature with alternating blanching and redness

of the toes and dorsum of the foot in cycles of several minutes duration. The dorsalis pedis could not be palpated but the posterior tibial was pulsating. Wassermann was negative. Up to this point the picture closely simulated a motor paralysis of the external popliteal nerve. One week after onset, nocturnal pain commenced in the toes and was of such severity as to disturb sleep. Further examination revealed anesthesia between the first and second toes, the terminal distribution of the anterior tibial nerve. The patient then disappeared from observation but returned 6 weeks later with a history of severe nocturnal pain in the toes and an osteomyelitis of the little toe, following the paring of a corn. He was admitted to the hospital, the toe was amputated, infection spread and involved the fourth and fifth metatarsals. The dorsum was incised and the metatarsals, lying in a sea of pus, were removed. The infection subsided and healthy vascular granulations filled in the wound but epithelization would not take place. Pain was always severe, especially nocturnal. Owing to extreme misery of the patient, the limb was amputated through the middle of the tibia. The findings during amputation were of interest: although no tourniquet was employed, no bleeding occurred other than a slight capillary ooze; posterior tibial was hard and fibrosed, without lumen; anterior tibial and peroneal could not be found. In spite of the lack of a normal circulation, not the slightest necrosis took place in the flap. Following operation, daily intravenous injections of sodium citrate were given, as recommended by Steele, and continued until patient left the hospital, and twice weekly in the clinic for several months afterward. The patient was then again lost sight of for 6 months, when he was readmitted on Nov. 16, 1928, with an acute onset in the other foot. On this occasion pain only was complained of, beginning suddenly 4 days before admission and limited to the lower internal aspect of the legs and dorsum of the toes. Examination revealed a livid blush of the toes and dorsum, and the absence of dorsalis pedis and posterior tibial pulses; marked blanching on elevation and lividity on pendancy; femorals and right popliteal palpable and not thickened, as were likewise the vessels of the upper extremity. The patient is receiving sodium citrate intravenously daily.

This case illustrates the following facts: (1) Occurrence in a person not of Hebrew origin; Ochsner found many cases among the Swedes of Wisconsin, and Koga among the Japanese. (2) Unusual mode of onset. While the acute thrombotic mode is not unusual, cases simulating motor paralysis have not been recorded. We have all observed the total paralysis occurring in limbs the main vessel of which have been suddenly obliterated but this is the first instance I have seen of an isolated group paralysis dependent upon ischemia. (3) Occurrence of vasomotor symptoms. By this we mean spasm or dilation independent of static influences, i.e., alternate redness and blanching while the limb is at rest. We must not place too much importance upon this phenomenon and class the case as functional, for it occurs in 10 to 30% of cases with an organic vascular lesion. (4) Importance of palpation of the vessels, in diagnosis. (5) Advisability of performing amputation at the lowest possible point. In view of the frequent involvement of both extremities sooner or later it certainly should be our aim to preserve at least one knee-joint. The pathology of the disease indicates that establishment of a collateral circulation is possible to a striking degree and this particular case demonstrates that flaps will not necessarily necrose even though no gross circulation is demonstrable even at operation. In view of the fact that amputated toes do heal, that trophic ulcers will at times heal, and that higher subsequent amputations can always be performed, I intend to perform a Syme's if necessary, against the generally prevailing views. Syme's method in this case would be of great advantage as patients can walk on a Syme's stump without preliminary adjustment of apparatus.

Two cases of gangrene of lower extremity (Dr. Tannert): C. S., aged 84, admitted Dec. 11, 1928. Three weeks before, complained of pain in foot when walking. Examination revealed that the big toe of the left foot was becoming black. He had never, to his knowledge, injured this toe. When not walking this pain was replaced by a pricking sensation. Physical examination negative except for a soft blowing systolic murmur at the apex. Examination of the affected part: middle toe of left foot showed black discoloration with well marked line of demarcation; toe very cold to the touch; very little edema; pulse present in the posterior tibial and dorsalis pedis. On Dec. 19 gangrenous condition had spread to the second toe; dorsalis pedis not palpable; large toe begins to show impairment of circulation; some redness and swelling of dorsum of the foot; blood sugar normal. Dec. 26: Gangrene spreading slowly; becoming moist and foul; second and third toes gangrenous; first toe in pregangrenous state and base showed white line of demarcation; tip of fourth toe gangrenous; fifth toe normal; in horizontal position, the dorsum of the foot distinctly bluish in color; in vertical position, dorsum becomes distinctly lighter, but still retains comparative difference in color from normal foot; with both feet hanging over edge of bed the involved foot markedly violaceous and the normal foot only slightly pinkish; from the line of demarcation up, affected leg is as warm as the normal. Dec. 31: Ulceration developing in line of demarcation and dorsum of middle toe.

With absence of sugar in the urine, advanced age, and picture of generalized arteriosclerosis, the diagnosis is senile gangrene or endarteritis obliterans. Because of advanced age, surgical intervention was delayed until the line of demarcation should ulcerate through sufficiently so that the toes could be easily amputated. This will probably be done within the next week.

F. V., aged 52, admitted Dec. 4, 1928. Present illness began last June with pain in the left heel while walking; dull at first and later became severe; then bluish discoloration of skin over the first metatarsal; excruciating pain on pressure; in a short time the big toe became entirely involved, with swelling of the tissues over metatarsal area; toe cold to touch. Dec. 5: Heat and elevation relieved pain somewhat and decreased discoloration; given 1000 c.c. of normal saline intravenously daily. Dec. 9: Put on specific therapy. Neosalvarsan 0.6 gm. weekly. Planter surface of the foot becoming more discolored, particularly the large toe. Dec. 21: Pulsation in dorsalis pedis and posterior tibial present but diminished in volume. Dec. 31: Intracutaneous saline test was utilized; i.e., 0.2 c.c. of normal saline was injected to form wheals

intracutaneously on various portions of the leg and foot. It was found that the wheals above the middle of the leg remained for 45 while the wheals below the middle of the leg disappeared in 15 minutes; such wheals last about 1 hr. if circulation is normal. Jan. 4, 1929: Stephen Smith disarticulation at the knee-joint was performed. Postoperative reaction good. Jan. 7: Dressings changed; drains removed; wound looks good, with exception of slight darkness of skin flap at site of the middle drain; no pain since amputation. In the absence of a generalized arteriosclerosis and in the absence of a specific history, this is probably a case of thrombo-angiitis obliterans, rather than a case of endarteritis obliterans.

In the first case there was a small area of gangrene with comparatively little pain, while in the second case involvement was greater, progression more rapid, and the pain severe. The general toxemic reaction in the second case was pronounced, while in the first case it was almost absent.

Discussion of Kuhlmann's and Tannert's Cases

Dr. Kuhlmann gave a review of the pathology of thrombo-angiitis as compared to the more common arteriosclerosis, its etiology, differential diagnosis, and treatment, with the aid of diagrams thrown upon the screen. The initial event in the process of coagulation of blood is liberation of thrombokinase by an agglutination of platelets; this, with the second constituent from the blood plasma, prothrombin, in the presence of calcium salts, forms thrombin; the second event consists in the interaction between thrombin and fibrinogen to form a network of fibrin. In thrombo-angiitis obliterans, it will be seen that most of the occlusion is due to formation of a clot, contrary to the method of obliteration of an artery in arteriosclerosis. The essential change in early arteriosclerosis is hyperplasia of the intima and increase in elastic fibers; later on there is a deposition of calcium in the media and absence of perivascular infiltration; on the other hand, in thrombo-angiitis obliterans the intima is normal and the striking change is a polymorphonuclear and giant cell invasion of the media, later involving the intima and adventitia.

Many facts, concerning both experimental and clinical coagulation of blood, indicate that bland obstructions interfering with the circulation are incapable of themselves producing extensive thrombosis. Such are the double ligation of a vein, the introduction of a needle into a vein, and mechanical means of producing stasis. Clinically, we note that atheromatous placques are only rarely surmounted by a coagulum and then only when ulceration occurs. All this data lends support to the idea that a toxin of some nature is necessary to produce extensive clotting such as is seen in inflammatory phlebitis and in obliterating thrombo-angiitis.

Dr. Tannert emphasized the fact that veins, as well as arteries, are involved in thrombo-angiitis, hence the name; he thought that this subject was best approached from the standpoint of gangrene, and classified as a special type, thereby preventing extreme confusion which results when one tackles the tremendous literature on the subject. Concerning etiology, it should be said that it has never been experimentally produced in animals by chronic nicotin poisoning.

Dr. Mancuso hazarded the supposition that the cause of formation of such a large clot in thrombo-angiitis is a group of factors producing a change in surface tension.

Traumatic evisceration (Dr. Sweeney): W. B., male, white, age 25, chauffeur, admitted Oct. 26, discharged Dec. 15, 1928. A half hour before admission, the patient was wedged in between an electric motor and a stone wall. There was a perforating wound in the right lower abdominal quadrant, about the size of a silver dollar and through which about 12 in. of small bowel protruded. After inspecting adjacent loops of small intestine, an opening in the ileum, about the size of a nickel, was found bleeding freely into the mesentery. The rent in the intestine was sutured from the serosa layer, inverting the wound edge by a running catgut suture; mesentery had to be repaired to prevent leakage; 2 cigarette drains were left inserted in the abdomen. There were no signs or symptoms of paralytic ileus, bowel leakage or wound infection. An inflammatory swelling in the right parotid region appeared 6 days later; discharged white purulent material via Stenson's duct. Culture of this discharge showed Staph. aureus. Constant heat applied to this swelling caused reduction in size, and after 6 days it perforated inferiorly and into the external auditory canal. A small incision was then made through the perforated area and drainage established; several ounces of pus evacuated. With the parotid infection there was a rise in temperature (102.4°) intermittent until drainage was well established. X-ray of the right mandible was negative as to bone pathology.

The abdominal wound healed by first intention excepting that there was not enough skin growth to cover the defect. Two small pieces of skin taken from the lateral aspect of the right thigh were grafted on the granulating wound, and patient was discharged, as cured, on Dec. 15, 1928.

Discussion

Dr. Sweeney said that a better title for his paper would be "Traumatic Complete Hernia of the Abdominal Wall", as this was actually what had happened. It was suggested that the parotitis which occurred postoperatively might be due to the presence of several carious teeth, but Dr. Klaus stated that this infection is often due to the rough manipulations of the anesthetist when he holds back the jaw, as the parotid gland occupies the space between the mastoid process and the mandible, extending forward on the surface of the masseter muscle, downward as far as the digastric muscle, and upward to the zygomatic arch.

Chronic Empyema (2 cases) *and Thoracoplasty* (Dr. Klaus): W. S., age 8 yr., was admitted to North Hudson Hospital Oct. 18, 1928, with the history of having had pneumonia 14 months previously, lasting about 2 months, with a convalescence most stormy. Following this illness the child was never well but continued to have fever at times, lost considerable weight and had a chronic cough. Seven months after onset of illness it was discovered, more or less accidentally, by an x-ray examination, that the child had an empyema. A thoracotomy and drainage of the left chest was done but following this operation, although the child improved much, the sinus failed to close and had been discharging pus for the past 7 months. At times

it closed for several days only to be followed by a rise in temperature.

Examination on admission showed a discharging sinus over the eighth left rib in the posterior axillary line; flatness of left chest from angle of the scapula to the base and from the fourth rib anteriorly to the costal margin; no breath sounds heard over this area; heart displaced considerably to the right. Roentgenogram showed obliteration of the left chest from a level of the second rib anteriorly to the base, with the lung crowded into upper and posterior aspect of chest, the heart being displaced to the right side. Blood count normal except for a secondary anemia.

The cavity was irrigated every day through a small catheter, to sterilize it, and the radical operation for empyema was done Oct. 29; a long incision along the course of the ninth rib completely excising the old sinus and about 3½ in. of rib. The empyema cavity was entered and found to extend posteriorly as high as the fifth rib; parietal pleura over ½ in. thick. Entire roof of this large cavity was then removed by excising the posterior portions of eighth to fifth ribs for a distance of 3½ in. together with all the intercostal tissue, periosteum and thickened pleura, in order to allow the chest wall to fall in. The lung was found completely collapsed in the upper and posterior aspect of the chest and bound down with dense thickened pleura. The visceral pleura at the costovertebral border was incised and by blunt dissection was stripped from the lung and pericardium. Considerable of the pleura was excised and the lung decorticated as far as possible. After this procedure it became quite mobile and filled the entire chest cavity upon inflation. A few thick bands which held it to the pericardium were divided. Two small rubber tubes were inserted into the lower angle of the incision for drainage and the wound closed.

Convalescence was smooth and the child discharged as cured Dec. 8, 1928, 5½ weeks after operation with the wound entirely healed. Fluoroscopy showed the lung returned to normal position with complete expansion.

A. R., aged 29, admitted Sep. 14, 1928, with the history of having been operated upon for acute empyema, following which there had been a persistent discharge from the sinus. Examination shows a sinus discharging pus over the tenth left rib posteriorly; flatness over the entire left chest from angle of the scapula to the base, as well as over the lower part of the chest anteriorly, with no breath sounds over the entire area. X-ray picture, with bismuth injected through the sinus, showed a large elongated empyema cavity, extending posteriorly as high as the seventh rib and with the lung pushed into the upper and posterior part of the chest. Operation Sep. 15, under paravertebral and gas-oxygen anesthesia. An incision was made posteriorly half way between the spinous processes and the scapula downward, and then forward along the tenth rib completely excising the sinus. The posterior portions for a distance of 6 in. of the eleventh to eighth ribs, together with periosteum, intercostal muscles and thickened parietal pleura, which was fully 1 in. thick, unroofing the extent of the entire cavity. The visceral pleura was found over ½ in. thick and was incised at its vertebral reflection and stripped off the lung; this was most difficult because of dense adhesions to the lung. The position of the pericardium and heart was difficult to locate and before this was separated from the lung the pericardial sac was almost entered. In spite of the fact that decortication proved most difficult, most of the pleura was excised and adhesions to the pericardium divided with a resulting considerable expansion of the atelectatic lung. The chest was drained through lower angle of the wound and incision closed. Her postoperative recovery was smooth but repeated x-ray and fluoroscopic examinations showed the cavity still persisting, although much smaller, and the lung expanding much more but not sufficient to completely obliterate it. Therefore, on Dec. 1, it was decided to further collapse the chest wall. The old incision extended well forward. The anterior portions of the eighth, ninth and eleventh ribs were removed, as well as the entire twelfth and 6 in. of the posterior portion of the seventh, thus giving a practically complete removal of 6 ribs. The lung being again found markedly adherent, these adhesions, particularly to the pericardium, were broken up by blunt dissection and the lung under inflation expanded freely. There is still a discharge from the tubes and the cavity will be obliterated by collapsing the chest wall by extensive rib resection although the lung has not fully expanded as is desirable in these cases.

Comment. These cases are being presented because there are no other suppurative diseases of the body except osteomyelitis that lead to greater chronicity and suffering; the reason for this being that in addition to the element of infection there are many mechanical factors concerned. These are negative pressure within the closed thorax, mobility of the mediastinum and diaphragm, a rigid chest wall and the production of an open pneumothorax when the chest is opened. Failure to recognize and consider them in treatment of the acute stage of the disease may lead to development of chronic empyema. A great many of these chronic cases are avoidable by remembering the mechanics of the chest, recognizing the causes, and applying good surgical principles of drainage in the acute stage. In a case that has not healed in from 1 to 3 months some cause must be sought, such as superficial sinus leading to necrotic bone or cartilage, infected granulations, deep sinuses leading to cavities from contracted openings, improperly placed drainage openings, foreign bodies, separate cavities, rigid wall cavities, pneumothorax, bronchial fistula, or tuberculosis. Treatment consists in removal of any of these causes; in some instances it may be simple but in others may require a radical operation.

Discussion

Dr. Lange stated that it was an extensive and dangerous performance to decorticate the lung, on account of shock and bleeding; also he referred to the use of muscle flaps to fill in the empyema cavity where there was insufficient immobilization of the chest wall and decortication of the lung is insufficient.

An atypical case of typhoid fever (Dr. Terk): A. G., female, housewife, aged 56, admitted Nov. 28, 1928. Previous to admission, patient complained of not feeling well and being very weak for about 2 weeks. Condition became gradually worse, and she called her family

physician who advised entering the hospital, as she had no one at home to care for her.

Family history apparently negative. Personal history: Married; 3 children; 1 died in infancy, 1 died of pneumonia at the age of 19, and the other is now living and well; menstruated at 13; menopause at 49. Her chief complaints on admission were: Malaise, backache, headache, vertigo, pain in abdomen, appetite poor, somewhat constipated and nervous.

Physical examination: Patient appeared acutely ill; face flushed; skin warm and dry; tongue coated; temperature 103°; pulse 100; respirations 32; B. P. 136/74. There was a slight blowing systolic murmur heard over the mitral area, but it disappeared soon after admission. Abdomen distended with slight rigidity. Her temperature during the first 13 days ranged between 101° and 103°. On the fourteenth day temperature dropped to 96°, then reached normal and remained so during the rest of the hospital stay. The urine at all times showed a slight trace of albumin, a few pus cells, and a few granular casts. Blood counts taken on numerous occasions varied from 4200 white cells and 54% polys. to 6000 whites and 61% polys. Widal on admission was negative, but on the third day there was a partial agglutination, which remained until shortly before discharge. The stools were positive for occult blood. Organisms present were characteristic of B. typhosus or B. dysenteriae group, but the laboratory was unable to identify them definitely. Patient was discharged cured.

Discussion

Dr. Justin believed that the finding of the same organism in the blood and the stools, which gave partial agglutination, substantiated the diagnosis made; if specific agglutination tests had been made, probably the diagnosis of B. paratyphosus A. or B. would have resulted.

Dr. Roberts referred to a typhoid fever epidemic of many years ago, in which instances of sudden drop in temperature occurred, which were explained by Prof. Edgar LeFevre as due to a sudden emptying of the gall-bladder; in these cases there was always a distended abdomen with some rigidity, as described by Dr. Terk.

Suicidal death from drinking chloroform liniment (Dr. Justin): Mrs. M. B., aged 38, white, married, was admitted Dec. 8, 4 hours after having swallowed a liniment containing camphor, menthol, arnica and aconite in chloroform liniment. She had taken about 3 oz., and had vomited some immediately, and some 2 hr. later. She was admitted in coma, apomorphin was administered, followed by stimulants of strychnin, atropin and caffein, and a retention enema of sodium bicarb. She became partially conscious, very irritable and had a temperature of 102°, pulse 100, respirations 26. She was well-nourished; showed signs of chemical burn on left cheek and lips; tongue was red and swollen. Soft systolic murmur at apex, some epigastric tenderness and 9% albumin in urine ,with B. P. 118/80. Her husband informed us that for 6 months she had suffered with insomnia, pains in head, delusions and depression. On the day following admission, patient was drowsy and irrational. She would not swallow fluids; but we believed this due more to her mental state than physical condition. X-ray picture was negative to substernal thyroid; capsules were regurgitated, and acacia mixture was arrested at upper third of the esophagus. She became more disturbed, weaker, and developed signs of pneumonia at left base; and the following day also at right base; myocardium became weaker, and despite stimulation, she expired 8 days after admission.

Comment was made of the actual amount of chloroform taken and the exact cause of death; the mixture swallowed proved to be 30% chloroform, by analysis, and the amount taken about 3 oz., so that about 1 oz. acted on the tissues; the lethal dose is regarded as from ½-4 oz.; when taken internally in toxic doses it acts as a powerful depressant upon the vasomotor system, and is capable of producing death in the same manner as when taken by inhalation; the patient died of a hypostatic pneumonia, her general resistance greatly reduced by the esophagitis, and fatty degeneration of numerous organs as was disclosed by autopsy.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Carteret Club, January 9 at 8:30 p. m., being called to order by the Vice-President, Dr. J. S. Vanneman, in the absence of Dr. Seely, who was ill.

The subject for the evening was a general discussion on "Medical Economics".

Dr. Sommer, speaking on the subject of "insurance", made a very emphatic and earnest appeal for all members to support the State Society relative to protection in malpractice suits. In the matter of "business", Dr. Sommer repeated the well-known fact that the Medical Practitioner is a very poor book-keeper, and that a study of business methods should appeal to the medical man, as being one of his greatest assets, if only as an aid in more easily making up his income tax return.

Drs. Belting, Haggerty, Costill, Schildkraut, Bellis and Sica added several remarks on the subject of "Ethics".

Drs. H. H. Ashley, W. D. Farmer, E. E. Graham and Samuel Cochran were elected to active membership.

Dr. Earle K. Miller was elected as an Associate Member.

The applications of Drs. Harold L. Davis and Lillian Malone were read and referred to the Membership Committee.

SOMERSET COUNTY

Lancelot Ely, M.D., Reporter

The work of the Somerset County Committee for the Eradication of Diphtheria has been considered a success. Mrs. E. C. Taneyhill gave a week to the work in the county, and presented her talk, illustrated by moving pictures, before a number of organizations and interested audiences. In 1 community she was fortunate in meeting a group of opposition and had a real experience of handling "hecklers", but proved she was well able to defend her points.

Each community was organized with a local committee which had full charge of the individual meetings, and outlying districts were cared for in the nearest centers.

The following meetings were held, and all were addressed by Mrs. Taneyhill:

Parent-Teachers' Association and Mass Meeting, at Somerville.

County High School Principals, and the Rotary Club, at Bound Brook.

Mass Meeting, at North Plainfield.

The Woman's Club, at Peapack.

Mass Meeting, at Raritan.

Parent-Teachers' Association and the Rotary Club, at Bernardsville.

Parent-Teachers' meetings at Middlebush, at Harlingen, and at Neshanic.

Clinics for administering toxin-antitoxin will be held throughout the county at a later date.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

A largely attended quarterly meeting of the society was held at the Elizabeth General Hospital on the evening of January 9, with Dr. A. F. VanHorn, of Plainfield, presiding. Much routine business was transacted, including election of the following new members: Morton Gettleman and Louis S. Wegryn, of Elizabeth; L. B. Armstrong, Westfield; and Joseph R. Schenk, Plainfield. In addition, 4 proposals for membership were received for consideration at our next meeting.

Dr. C. H. Schlichter cited the report on medical progress in 1928 just given out by the New York Academy of Medicine and quoted extensively by the metropolitan press. A special warning against indiscriminate use by the public of ultra-violet ray lamps is made in the report. These lamps are sold and rented to the laity with many promises and no warnings, and serious ill effects may follow their improper use. The subject was referred to a special committee for further consideration.

Dr. Harvey M. Ewing, of Newark, was the speaker of the evening and gave an interesting and instructive talk on "Cardiac Pain". He grouped the cases of angina pectoris into; (1) those due to effort; (2) those due to coronary occlusion. Those due to effort are most often found in successful business men of middle age who have worked hard, worried and failed to play out doors. The disease is on the increase. Heredity is an etiologic factor and focal infection also plays an important part. The chief complaint ranges from mere discomfort to severe, compressing pain, often substernal. The attacks are most common after breakfast and occur after physical exertion or mental strain. McKenzie explained the pain as an expression of inadequate circulation in the affected parts. The prognosis is uncertain, as the apparently mild cases may die suddenly, while severe ones may live 20 years.

Rest is the keystone of treatment and should continue from 4 to 8 weeks, followed by very gradual exercise. Foci of infection should be removed. The drug that has given most brilliant results is cuphyllin gr. 3, t.i.d., combined with luminal, gr. ¼. Every patient should also carry hypodermic tablets of nitroglycerin gr 1/100, to be dissolved on the tongue in emergencies. Other useful remedies are continuous doses of chloral hydrate gr 5, t.i.d.; quinin bisulphate gr. 2, t.i.d.; and diuretin.

Cases of angina pectoris due to coronary occlusions are less amenable to treatment; which should consist of large doses of morphin for relief of pain.

A social hour, made more enjoyable by a collation, brought the evening to a close.

Appended are 2 letters recently issued by the Secretary in the name of the society:

Letter to each Newspaper Editor of Union County:

January 14, 1929

Dear Sir:

The Union County Medical Society, representing the major portion of the regular medical profession in this county, recently appointed a Public Health Relations Committee. It has been noted that articles on medical subjects, and on matters of public health, appearing in the lay press, are often not entirely correct, due to the fact that the layman is not always able or in a position to properly interpret information about these subjects. This Committee desires to be helpful in disseminating correct knowledge on these matters and begs to offer you its services in giving authoritative information whenever you deem it proper to call upon them. It is not the purpose of the Committee, or of the County Society, to criticize the lay press, which has been very helpful in distributing information of vital interest to the public, but rather to be an aid to the Gentlemen of the Press so that such information shall have the stamp of the medical and public health authorities and, as far as possible, be free from incorrect statements.

The personnel of the Committee, which changes from time to time, is for the present year: Drs. C. H. Schlichter, Chairman, Elizabeth; N. W. Currie, Painfield; George S. Laird, Westfield; George W. Strickland, Roselle; Watson D. Morris, Springfield; Horace R. Livengood, Elizabeth; A. F. VanHorn, President Union County Medical Society, ex-officio, Plainfield; H. H. Bowles, Vice-President, Union County Medical Society, ex-officio, Summit; George H. Horre, Secretary, Union County Medical Society, ex-officio, Elizabeth.

Communications addressed to any member of the Committee will receive prompt attention.

Your truly,

Geo. S. Laird, Sec.

Letter to each Board of Health of Union County:

January 15, 1929

Dear Sirs:

The Union County Medical Society, representing the organized regular profession in this county, desirous of being helpful in matters of public health to the various communities in the county, has appointed a committee known as the "Public Health Relations Committee" whose duty it is to offer the coöperation of the Medical Profession to your body in all matters affecting public health. Please be advised that this committee stands ready and is at your service at any time you may care to make use of its offices.

(Committee same as above—Ed.)

Communications addressed to any member of the Committee will receive prompt attention.

Yours truly,

Geo. S. Laird, Sec.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Ephraim R. Mulford.....Burlington
First Vice-President, Andrew F. McBride.....Paterson
Second Vice-President, George N. J. Sommer.....Trenton
Third Vice-President, John F. Hagerty.....Newark
Corresponding Sec., William J. Carrington....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Norton L. Wilson, *Chairman*.....Elizabeth
James Hunter, Jr., *Secretary*.....Westville
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
Lucius F. Donohoe.....Bayonne
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires, 1932	George H. Lathrope, Newark
Second District	" " 1931	B. S. Pollak, Secaucus
Third District	" " 1930	Martin W. Reddan, Trenton
Fourth District	" " 1929	Paul M. Mecray, Camden
Fifth District	" " 1933	J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

W. E. Darnall, Chairman	Term expires	1929
R. K. Hollinshed	" "	1930
Lancelot Ely	" "	1931

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City	Term expires	1929
J. Finley Bell, Englewood	" "	1929
Thomas B. Lee, Camden	" "	1930
Henry Spence, Jersey City	" "	1930
H. Garrett Miller, Millville	" "	1931
Harvey S. Brown, Freehold	" "	1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty	Term expires	1929
B. S. Pollak	" "	1929
W. Blair Stewart	" "	1930

Alternate Delegates

George H. Sexsmith	Term expires	1929
Philip Marvel	" "	1930
S. B. English	" "	1930

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark	Term expires	1930
Edward J. Ill, Newark	" "	1929
J. Bennett Morrison, Newark		Ex-officio
Ephraim R. Mulford, Burlington		Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*	Term expires	1933
Paul M. Mecray	" "	1934
John Nevin	" "	1929
B. S. Pollak	" "	1930
H. Garrett Miller	" "	1931
Thomas W. Harvey	" "	1932
Elias J. Marsh, *Treasurer*		Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton	Term expires	1931
William G. Schauffler, Princeton	" "	1929
William D. Olmstead, Atlantic City	" "	1930
Ephraim R. Mulford, Burlington		Ex-officio
J. Bennett Morrison, Newark		Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Forman.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
Ralph K. Hollinshed.....Westville
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
James S. Green.....Elizabeth
Edward Guion.....Northfield
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
George H. Lathrope.....Morristown
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
B. C. McMahon.....Morristown
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark
George T. Tracy.....Beverly
Clarence W. Way.....Sea Isle City

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.

NOW IN OUR NEW LOCATION

Accurate Prescription Glasses

As we do not sell glasses without a prescription we depend upon the Oculist for our business.

The Oculist and patient can rely upon us for absolute accuracy and service.

All lenses are ground to precision in our own Laboratory. Ours is the oldest optical house in New Jersey, having been established in 1892. Our new building is designed to render increased service and efficiency.

New Location

10 HILL STREET
One door from Broad St.

NEWARK N. J.

J. C. Reiss Optician

Hill Street
Is on the West side of
Broad St.
Opposite City Hall
Where parking is possible.

Member of the Guild of Prescription Opticians of America.

ANNUAL MEETING—JUNE 12, 13, 14, 15
Haddon Hall, Atlantic City, N. J.

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103. Act of Oct. 3, 1917, authorized July 29, 1918

Vol. XXVI., No. 3. Orange, N. J., March, 1929 Subscription, $3.00 Per Year
Single Copies, 30 Cents

CONTENTS

ORIGINAL ARTICLES— Page

Carcinoma of the Larynx—Dr. Henry Boylan Orton 191

Acute Retrobulbar Neuritis Caused by Inflammation of the Sphenoid Sinus; Report of Cases—Dr. W. Blake Gibb..... 197

The Nasal Septum as a Factor in Stenosis —Dr. Theodore W. Corwin 201

ORIGINAL ARTICLES— Page

Accessory Sinus Infection—Dr. C. Eugene Darby 206

The Question of Operation in Acute Purulent Otitis Media—Dr. E. Blair Sutphen 209

Aural Sepsis—Dr. Henry C. Barkhorn.... 211

Trials and Tribulations of the New-Born —Dr. Joseph H. Marcus 217

Continued on page VI.

TWO MALTBIE ACHIEVEMENTS

which meet your therapeutic requirements!

CLINICAL experience during influenza epidemics demonstrated that Calcreose was of value in the treatment of pulmonary and intestinal complications.

The Tablets Calcreose 4 grs. contain 2 grs. of pure creosote combined with hydrated calcium oxide.

Each fluid ounce of Compound Syrup of Calcreose represents Calcreose Solution 160 minims (equivalent to 10 minims of pure creosote); Alcohol, 24 minims; Chloroform, approximately 3 minims; Wild Cherry Bark, 20 grains; Peppermint, Aromatics and Syrup q. s.

The MALTBIE Chemical Company, Newark, New Jersey.

MALTBIE Calcreose

CELIAC DISEASE

"A non-laxative combination of dextrin and maltose is best adapted because it can be given in such large amounts as necessary to cover the caloric needs without producing fermentation, diarrhea and intoxication." - - - - - - - -

MEAD'S DEXTRI-MALTOSE

WHILE celiac disease is met only occasionally in infant feeding, its stubborn resistance to treatment is well known.

This disease alternates between constipation and diarrhea, accompanied by intermittent vomiting, caused by a low acidity of the stomach.

The stools are characteristic of this particular type of indigestion, large, foul and bulky from undigested fat.

There is a marked intolerance for fats and, to a lesser extent, for carbohydrates.

Treatment then lies in the correction of the diet. The amount of fat must be lessened and the carbohydrate increased to make up this deficiency.

Mead's Dextri-Maltose is the indication in such cases because of its easier assimilation in cases of weakened digestive powers.

Because of its greater assimilation limits, it is used liberally by infant feeders in the case of well infants. This, because it offers the greatest insurance against the appearance of digestive disturbances.

From Text Books of over a decade

THE MEAD POLICY

Mead's infant diet materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

MEAD JOHNSON & COMPANY

EVANSVILLE, INDIANA

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 3 ORANGE, N. J., MARCH, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

CARCINOMA OF THE LARYNX

Henry Boylan Orton, M.D.,
Newark, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 7, 1928)

According to Dr. Louis I. Dublin, of the Metropolitan Life Insurance Company: "Cancer is a condition which occurs usually late in life, toward the end of the economically productive period. However, a very considerable number of deaths occur at younger ages, more than commonly supposed. For example, under 25 years old, there are every year about 1600 deaths from cancer; between 25 and 35 years there are close to 3000 deaths every year; between 35 and 45 there are every year nearly 10,000 such losses of both men and women, more women than men. One of the worst features of cancer is the fact that its victims, before succumbing to the disease, pass through a long period of illness and suffering."

On the face of that, it seems rather a formidable condition and it is the hope that this paper may be a slight stimulus for the early recognition of cancer, particularly so in the field of which I am speaking. I am reporting nothing original, but will show on the screen figures which I trust will substantiate my plea for the early diagnosis of carcinoma of the larynx.

Dr. Lionel Colledge states that "Laryngectomy has been widely practiced and much discussed in recent years. It has been performed frequently in totally unsuitable cases and has been attended by a high mortality in the hands of many, and in the hands of a few under certain conditions it has been made a safe operation." His classification is as follows:

(1) Where the disease has extended at all widely to the subglottic region. There is a high percentage of recurrence after laryngofissure in this condition, owing to the difficulty of elevating the mucous membrane below the lower edge of the thyroid cartilage, and the ease with which the disease spreads through the cricothyroid membrane and crosses the middle line.

(2) Where the disease crosses the anterior commissure and invades both vocal cords.

(3) Where one or both vocal cords are fixed and there is extension to the arytenoid region. Although fixation of 1 cord does not necessarily contraindicate laryngofissure, yet such cases show a large percentage of failures, and the question whether this operation or a partial or total excision of the larynx is the appropriate operation must be considered in each individual case. Hemilaryngectomy, or some modification of it, will result in a better voice and less social disability, but a permanent tracheotomy may be necessary afterward in spite of the attempt to preserve an airway through the larynx, and there is a greater risk of recurrence.

(4) Where both vocal cords, the ventricular bands and the subglottic region are attacked, and the larynx is choked with growth, no doubt can arise that laryngectomy is the proper operation.

(5) Where the disease has recurred after

laryngofissure, though occasionally a second fissure or partial excision may succeed, a layrngectomy should generally be preferred to a lesser operation. Recurrence after a laryngofissure, therefore, is not so hopeless as has been thought, but the outlook is clearly not very encouraging.

"The decision whether laryngofissure, laryngectomy, or some interesting procedure is the appropriate operation for the case is of the utmost importance."

It is important that the proper procedure be selected before any operation is performed but, on the other hand, we should not allow ourselves to be forced into operating on an unsuitable case upon the plea that the disease is invariably fatal. In this series of 70 cases, each patient was at one time or another in an operable stage and had a good chance of at least a 75% cure; perhaps a little less. These cases are not all of the very best, but I can state that in all of the strictly intrinsic carcinomas of the larynx which were operated upon, the patients are alive at the present time. The deaths have been among extrinsic cases, where an attempt was made to exenterate the entire growth en masse.

Types. When I speak of intrinsic carcinoma, I am referring to a carcinoma of the larynx that has not involved the arytenoids nor the vocal process; one that is limited to a vocal cord or the subglottic area, and which has not invaded the cartilagenous structures nor gone below the cricothyroid membrane; in contradistinction to the extrinsic variety which includes a growth of the cord that has invaded the arytenoids, the epiglottis, the pyriform sinus or even the anterior wall of the esophagus, or extended through the cricothyroid membrane to the structures of the neck. These cases of extrinsic type I believe still offer some hope if seen early. There can be no question, however, about the intrinsic type, or the result of operation. A few patients with the extrinsic type are still alive—for how long I dare not say—and up to the present time have had no recurrence.

Some of the cases might be termed pharyngeal cancer, where the growth occurs in the aryepiglottic fold or the pyriform sinus or epiglottis. Certainly, if a growth began on the epiglottis and was recognized in its very early stages by proper laryngeal examination, it would not be justifiable to sacrifice the entire larynx for removal of the epiglottis. The removal of such a growth, of course, would be by lateral pharyngotomy. One case in particular is that of a postcricoid carcinoma of the esophagus in which the larynx and anterior wall of the esophagus was removed and a new esophagus made. This was done last November and no recurrence has taken place up to the present time, even after 4 plastic operations.

In another class we have glandular involvement; which is practically hopeless. In the class of postcricoid carcinoma some authorities state that it is not necessary to remove the entire larynx, but the line of resistance is so thin between the esophagus and the larynx that it might be splitting hairs to try and remove the growth without removing the larynx. Especially if it has invaded down the esophagus, for, as you all know, the tracheal rings are incomplete other than the cricoid cartilage and the lymphatic drainage of the larynx concerns the anterior wall of the esophagus as well.

I will not burden you with other men's statistics, except to state that the mortality is very much lower now than formerly and that we must try to get away from the old idea that because there is a cancer in the larynx, or the structure adjacent to it, nothing can be done. For those of you who are interested, I refer you to the writings of Mackenty, Jackson, Thompson, Colledge, and Lewis.

In 17 complete laryngectomies, we have 6 ultimate cures, or 35%; in 4 laryngofissures, 4 ultimate cures, or 100%. Of the other 49 patients to whom palliative treatment only was given, such as radium or x-rays, or who refused any treatment, all are dead or have had a recurrence. I think these figures coincide with the statistics of other men as to the prognosis of carcinoma of the larynx diagnosed early.

Diagnosis. In this series of cases it is surprising to note that all but 1 of the patients complained of hoarseness existing from a few

months to a few years, and if we are to get these cases early, hoarseness should be considered the one danger symptom. Any person over 30 years of age, possibly younger, who complains of hoarseness for a period of 1 month, should have his larynx examined repeatedly by a laryngologist. It is only by early diagnosis that we can expect the splendid results obtained by Sir St. Clair Thompson and Professor Chevalier Jackson whose percentage of cure is between 80% and 85%. It is also important that physicians educate the public up to the point of accepting this operation. In this series of cases we have a number of persons who had a good opportunity to obtain a cure, but all of whom refused operation until it was too late; then they were perfectly willing to have anything done. The feeling of the general public, and the medical profession as well, that a laryngectomy or an operation on the larynx prevents a man from earning a livelihood and that he will become a burden on his family, is of course an idea that should be dispelled. All the patients who have been operated upon and are living are perfectly happy, as I will show you this afternoon, and enjoying life to the fullest extent.

Voice in laryngofissure, or thyrotomy and laryngectomy. After laryngofissure, the voice is husky and good, and a man can carry on his vocation and make a livelihood. I will show 2 patients, on each of whom I did a laryngofissure, and you can see that there is no very marked hardship placed upon either of them.

After laryngectomy, it depends upon the individual whether or not he will acquire the habit of swallowing air and using his stomach as a bellows; as he regurgitates the air to the mouth, he forms the words and has a buccal voice. I will show a patient who can talk without an artificial larynx. Some can get along very nicely without the use of such apparatus; others may find it necessary to use the Mackenty artificial larynx. Another patient is present this afternoon on whom I operated 4 years ago, who has used the artificial larynx with good results.

I think a great deal of harm has been done in stating to individuals that if they have the larynx removed they cannot talk. If you, yourself, had the choice of being able to talk and not see, or to see and not talk, there is no question which you would prefer.

General factors. Preparation of the patient for operation is of great importance. After tuberculosis and syphilis have been eliminated as possible complications, the following is our pre-operative preparation:

(1) Careful attention should be given to cleansing of the mouth with tooth brush and 25% alcohol mouth wash before and after feeding.

(2) Normal salt nasal douche should be used twice a day.

(3) Colon should be cleansed by a laxative and a high enema of pure carbonate of soda solution, 1 dram to 2 quarts. This to be followed by a colon irrigation of salt solution, through a large colon tube, 2 or 3 gallons.

(4) Every other day patient should have a modified irrigation using 1 gallon of salt solution.

(5) Bicarbonate of soda, 3 drams, given by mouth between meals every 24 hours for 3 days preceding operation.

(6) Diet: Nutritious, low protein content. No eggs, milk or beef. Well cooked cereals with cream, chicken, thick soups, spaghetti, rice, bread, butter, vegetables, fruit and juices.

(7) Digitalis in 5 minim doses 3 times a day.

(8) Twelve hours of starvation; water up to within 3 hr. of operation.

(9) Three hours before operation shave chin up to lip, neck and well back, and upper part of chest. Use green soap on cotton, no brush. Clean water, then alcohol, no dressing.

(10) Give morphin gr. ¼, atropin gr. 1/300 1½ hr. before operation.

(11) Internist should examine the lungs and heart; the pathologist should do a blood chemistry and estimate the caloric value for 24 hours.

(12) Bladder should be emptied at the last moment.

As to anesthesia: I have followed Mackenty's technic of local anesthesia followed with gen-

eral; I have combined in laryngofissure both Sir St. Clair Thompson's and Professor Chevalier Jackson's methods, and I have followed Dr. Fielding O. Lewis' technic in rectal anesthesia. I am rather partial to rectal anesthesia as there is considerably less mucus following operation and less cough, though possibly it is a trifle more dangerous. A competent anesthetist, trained in rectal anesthesia, should give it.

Various forms of treatment: Thyrotomy, or laryngofissure, as practiced by Sir St. Clair Thompson, of England, and Professor Chevalier Jackson, of Philadelphia, offers, as I have stated before, 80% to 85% cure if done early. The operation is performed under local or general anesthesia, or a combination of both. The median incision is made, exposing the larynx and part of the trachea; tracheotomy tube is inserted; the perichondrium and the larynx are separated in the median line but not through the perichondrium on the inside, depending on location of the growth. The trachea is then packed above the tracheotomic wound. With a separator, the perichondrium is separated from the cartilage on the affected side as far back as the vocal process, as high as the extent of the cartilage, and below to the cricothyroid membrane. The perichondrium is then cut through a little beyond the median line on the unaffected side, and the entire elevated portion of the interior of the larynx is removed. A fibrous band forms later and the patient has a good voice, as shown by the 2 here present. I have done 4 of these operations; all the patients are living, one of them 9 yr. after the operation, without a recurrence.

Where the growth has involved more than the anterior third, or where the growth is subglottic and has involved the vocal process, nothing short of laryngectomy will be of any avail, although some might take a chance on laryngofissure. This means, of course, anesthesia either local, general or a combination of both, or rectal anesthesia with its special advantages.

A "T" or "H" incision is made and the flaps of the skin resected back to the anterior part of the sternocleidomastoid. The overlying muscles of the larynx may or may not be removed, according to conditions found. The larynx is skeletonized; an opening made into the hypopharynx; the pharynx is plugged off after painting it with mercurochrome; the larynx is amputated below the cricoid cartilage and dissected up away from the esophagus, having as small an opening as possible in the pharynx; the esophagus is brought together and the opening into the pharynx closed by continuous sutures; a feeding tube is placed through the nostril and down into the esophagus, and a laryngectomy tube, fitting snugly in the trachea, and a drainage tube completes the operation, after bringing the skin edges together.

One man who is present today left the hospital completely cured 19 days after such an operation.

We now come to the part of the subject which no doubt will bring up quite a little discussion, namely: the use of x-rays and radium. I certainly am absolutely opposed to radium or x-ray therapy in case of intrinsic carcinoma of the larynx. In this series of cases we had 4 patients with intrinsic carcinoma of the larynx very favorable for operation, and only one of them is living. In 1 case radium was applied and it was necessary to do a tracheotomy, and later the anterior portion of the neck sloughed away. In 1 case, in which tracheotomy and laryngectomy were done, radium was used and the patient died 4 months later of a recurrence, and in this case the entire front of the neck sloughed. Another patient on whom radium was used died suddenly at his home, probably from edema of the larynx. Of these 4 cases treated with radium, only 1 was cured. That man is alive in Newark at the present time. Radium certainly has no place in intrinsic carcinoma of the larynx.

In papers by Drs. W. L. Watt and N. S. Finzi, read before the Section of Laryngology, Royal Society of Medicine, London, on December 2, 1927, they state that the danger of radium is that it causes swelling of the larynx and a tracheotomy becomes necessary. They also state further that when radium or x-rays are used, especially the former, the dose has to be so large as to render the growth

subject to septic infection. They end up by saying that they do not believe rays alone will be the ultimate treatment for malignant diseases and that team work is essential. Radium causes a necrosis (perichondritis radiographic) of the cartilage, and a reaction which in itself necessitates a tracheotomy in most cases.

The larynx, pyriform sinus and thyroid cartilage are not very tolerant to x-rays. In 1 case we attemptd, after the procedure of Portmann, to resect the cartilage on both sides after a preliminary tracheotomy had been done so that we might remove the barrier to radiation. The operation, so far as removing the cartilage was concerned, was successful, but the case had advanced too far before any treatment was begun.

We have much to learn from the use of radium and if we remove a larynx and glands and then treat by deep x-ray therapy or radium we may arrive at some definite end-results, but if I had a cancer and the condition was too far advanced for any operative procedure, I agree with Dr. Harris, of New York, in the statement that he would rather endure the disease than risk the uncertain results of radium. There will be some, however, notwithstanding all arguments for operation, who will take radium.

Diathermy, endothermy or electrocoagulation, to my mind, seem to offer the best solution. Of late, in extrinsic carcinoma of the larynx. I have been using diathermy with a high frequency current knife and I feel convinced that this procedure is the one of choice in extrinsic cases; and if my success has not been very great, it is due to the operator and not the procedure. It certainly has advantages in sealing off lymphatics; it causes very little shock; and it is surprising the extent of operation that may be done without any serious reaction.

Postoperative care. I will not take up your time by going into detail regarding postoperative care, which is important, but will state that I wish to thank those who have not spared themselves in their devotion and care of these patients. Because of the great importance of the postoperative care, I will not do a laryngectomy without at least 2 nurses on the case who are giving their undivided attention to that patient. To do a laryngectomy without that degree of care would be doing the patient a great injustice.

(1) Gown should be changed before leaving the operating room.

(2) Bed should be warmed and the hot water bags removed before patient is put into the bed.

(3) Suction pump should be installed beside the bed and must be kept there.

(4) Several medium sized, soft rubber catheters must be kept ready in sterile boric solution.

(5) After catheter is used, it should be washed, sterilized and replaced in the bowl.

(6) In its use do not injure the mucous membrane.

(7) It may be used every 15 or 20 minutes, but avoid if possible. Remember it is a life-saving device when indicated. This should be done as quickly as possible, as it causes coughing.

(8) Secretions which lodge in the inner tube must be removed frequently and the tube cleansed. This cleansing must be done thoroughly, using soap, water and a swab. After careful inspection, being sure the lumen is clean and bright, the inner tube should be replaced.

(9) The outer tube must not be disturbed by the nurse.

(10) Fluffed gauze, kept moistened with boric acid, is laid over the mouth of the tube. As it dries rapidly, it must be changed often.

(11) Patient should have position changed frequently.

(12) Saliva forms in mouth and should be removed every few hours by turning the patient well over on the side and using suction. This is to be done more frequently if he cannot swallow.

(13) Once a day, mouth, teeth and pharynx to be painted with 25% mercurochrome.

(14) Mouth wash, 25% alcohol, to be used every 4 hr.

(15) Dressings covering the wound *above the tracheal tube* should be changed as often as soiled. Aseptically.

(16) Entire dressing to be ready for

changing by the doctor. This should include head-mirror and drop light.

(17) Remember a tracheotomized patient cannot call for help.

I have endeavored to show in a general way that the operation, in properly selected cases, is justified by the results, both immediate and remote, although it is all too often declined. In quite a number of cases where there has been an intrinsic carcinoma of the larynx and the patient has had good opportunity for a cure, he has been persuaded from being operated upon by his friends, and even by other physicians. This and hoarseness is the key-note for early cure.

Conclusions. Dr. Battle Malone, of Memphis, Tenn., states that: "There can be no doubt that the mortality from cancer is increasing alarmingly all over the world. Susceptibility to cancer in younger persons has increased, as shown by the rising death rates in the age group 30 to 40. Aggressive campaigns of publicity for the purpose of acquainting the people at large, both the profession and the laity, with the great need for early recognition and prompt treatment present the only means now at our command for lessening the mortality, which has increased so alarmingly during the past 40 years."

I have seen no good come from radium in cases of carcinoma of the larynx, and in extrinsic carcinoma, lateral pharyngotomy or subhyoid pharyngotomy, diathermy, and resection of the glands may give some hope for those poor individuals who, otherwise, go on to a very painful existance and exit.

A plea is made for early diagnosis of cancer of the larynx; that every individual with hoarseness of a month's duration should have a thorough laryngeal examination made; that in certain selected cases of intrinsic carcinoma of the larynx, a laryngofissure gives a better chance of cure than for cancer in any other part of the body. In certain selected cases of intrinsic carcinoma, a total laryngectomy should be performed, and in another class of extrinsic carcinoma, if not too much involved, operation, diathermy and resection of glands, and deep x-ray therapy should be done.

70 CASES

Males	62	Hoarseness	69	Ages: 40 to 50	17
Females	8	No hoarseness	1	51 to 60	29
				61 to 70	15
				71 to 80	7
				81	2
					70

Type: Insrinsic	21	
Extrinsic	49	
	70	

Intrinsic 21	Operated on Laryngofissure 4	Laryngectomy 4	Living 8	Dead 0
	Refused operation 8	Radium 5	Living 1	Dead 4

Extrinsic 49	Operated on Laryngectomy 13	Tracheotomy 7	Resection of Cartilage 1	Radium or x-rays 5	No operation 23

Operations—		Living	
Intrinsic	8	8	100%
Extrinsic	21	2	10%
	29	10	

Deaths within 3 weeks following operation—3.

DISCUSSION

Dr. Wells P. Eagleton (Newark): I am not competent to discuss it, but Dr. Orton asked me to discuss his paper and gave me a copy of it. I told him I would gladly discuss it, not because of what I can bring to the subject, but rather because of the attitude that I know the physician should have.

When I first started in practice a woman came to me, who was hoarse and had a tumor of the larynx. After I had tried to take out pieces of it, as we did for some little time, one day Dr. Wakely and Dr. Adrian Fisher came to see me. Dr. Fisher, being a very straightforward gentleman, interviewed me with something of this kind: "Dr. Eagleton, you have a patient of mine, Mrs. Smith, who has a tumor of the larynx. If you don't know what to do for her, say so and I will send her to somebody who does." (Laughter.) From that time on Dr. Fisher and I were good friends. So much for the first point of our treatment.

Dr. Orton has made the point that any man who is hoarse for 1 month should not be treated as if he had chronic laryngitis. Even among laryngologists, a patient will go on for a long time with a growth that is not recognizable by the ordinary mirror.

The third and last point is that ordinary throat men, no matter how much they have read, no matter how much they may have studied, should not undertake to treat cancers or tumors of the larynx. Today, and after having seen Dr. Orton's work at the Eye and Ear Infirmary, I realize that it is a tremendously delicate, technical job. When Dr. Orton first came to the Infirmary there were a number of men who wanted to try it, but gradually, one by one, they have stopped and turned their cases over to a small group of men because of the great technical difficulties encountered in the removal of such a growth. Almost any throat man can do a laryngofissure. That is why there are so many of them done. However, after the surgical work has been done, as Dr. Orton called attention to in the paper, he then passes his cases to 2 trained nurses and they devote their entire time to the patient's care.

Being a frugal gentleman, I objected very seriously to the very great expenditure necessary to treat a charity case in a hospital when 2 trained nurses would be there for some weeks in attendance on them; I thought it was simply a case of being finicky, until one day at the City Hospital, in making rounds, Dr. Orton showed me a patient that had been operated on, and every time that patient coughed a lot of infecting material came up. Somebody had to be there to catch that or the patient would draw it back. If you will follow one of the cases, you will note the amount of time, the delicateness of manipulation in connection with the surgical treatment which requires a thorough understanding of the anatomy, physiology and pathology of the patient. The matter of taking care of the patient afterward is quite a job in itself. The technic in performing this operation is one which very few men have acquired, and from what I have seen of the operation I think it would be a very brave and courageous man who would undertake to do the operation with the present general state of knowledge.

Dr. James A. Fisher (Asbury Park): I think there were 4 cases in this group that Dr. Orton presented, that I had sent up to him. This gentleman here was the first case, and of course we were all delighted with the result, as he has been. I didn't see all of them early myself; some of them were pretty advanced cases, especially that postcricoid carcinoma of the esophagus that had been treated for a long while, including the taking out of the tonsils, pillars, uvula and everything else, in trying to cure the hoarseness of the voice. I think that patient went up the day after I saw her. There is an epidemic of them going around my office. The mother of my nurse in the office had an intrinsic carcinoma of the cord that was just peeping through. A laryngofissure was done on her. Another patient in my office brought her grandfather in last week. I suppose she didn't have very much confidence in me anyway, a chiropractor having taken care of him ever since last September. He has a massive carcinoma that I told Dr. Orton I wouldn't even trouble removing. The only thing that can be done is a very low tracheotomy.

I certainly appreciate the work which Dr. Orton is doing; it is highly specialized, and to have a man in our vicinity on whom we can call to do this very highly technical work is indeed something to feel proud of.

Chairman Emerson: Is there any further discussion? If not, I can only say what Dr. Fisher has said, namely, that we have hastened to have Dr. Orton made a consultant at the Orange Memorial Hospital and I think practically all of the men in the Oranges are consulting him when they get into work of this sort. It is highly specialized work; it is work which the occasional operator, seeing occasionally, has no business to attempt to do anything for, and we appreciate Dr. Orton's presence in our vicinity very much. Have you anything to say in closing, Dr. Orton?

Dr. Henry B. Orton (closing discussion): Only that I wish to thank these gentlemen for their kind remarks. I have done very little and I couldn't have done that without the hearty cooperation of the staff at the hospital. Dr. Barkhorn helped me on some of the cases that I have not included in this list, and it has been due to that sort of team-work that we have been able to show such results.

ACUTE RETROBULBAR NEURITIS CAUSED BY INFLAMMATION OF THE SPHENOID SINUS

—Report of Cases

W. Blake Gibb, M.D.,
Morristown, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928)

Few subjects have been more discussed during the past 20 years than the subject of this paper, and, although acute retrobulbar neuritis due to a hidden, nonpurulent inflammation of the sphenoid is accepted as a clinical fact, there are many phases to the subject, especially in reference to pathology

of the sinusitis, the mode of infection, and the treatment, that are still mooted questions. The purpose of this paper is to bring to your attention a brief review of the subject with some of the newer theories lately advanced.

In opening, I wish to recall to your attention the close relationship that exists between the sphenoid and posterior ethmoid sinuses and the optic canal. Knapp says that an examination of 100 skulls showed that in 38% only a thin wall of bone, varying in thickness from 1-2 mm., separated the sphenoid from the optic canal. In fact, the separation may be of only parchment paper thickness, and the optic nerve has been found actually traversing one of the posterior ethmoidal cells.

The pathologic nature of the inflammation of the sinuses has been generally regarded as a hyperplasia, that is, an excessive formation of connective tissue produced by a chronic, low grade, localized inflammation. McCollum, in his text-book on pathology, describes both hypertrophy and hyperplasia as an increase in bulk of the tissue, but hypertrophy is a term used to indicate an enlargement and strengthening of an organ brought about by an increase in the size of its elements, while hyperplasia, on the contrary, is the result of increase in the number of these elements or cells. Again, Vail states "hyperplasia of the sphenoid or ethmoid bone is a rarifying osteitis associated with inflammatory swelling and fibrous thickening of the mucous membrane lining their cavities, causing edematous tissue to fill them without the formation of pus; the limiting wall, called the capsule, is also thickened and the orbital wall is involved as well as the nasal."

What is the mode of infection? Peters felt that the inflammation spread to the nerve by 2 methods, first from the sinuses through direct extension to the nerve; second, by means of the posterior vein of Vossius, which receives tributaries from the nose and posterior part of the orbit and enters the optic nerve in the optic foramen, occupying in it a central position and passing back toward the chiasm. He showed that production of the enlarged blind spot could be accounted for by direct extension affecting the peripheral portion of the nerve which supplies the area of the retina immediately surrounding the disc, and that the central scotoma was caused by toxic material carried through the blood stream to the papillomacular bundle in the center of which lies the vein of Vossius.

In 1920, at the Ophthalmological and Rhinological Congress in Vienna, many rhinologists did not share the opinion of the ophthalmologists that operation on the sinuses was indicated or justified in cases of retrobulbar neuritis when nasal examination was negative. It was as a result of this controversy that last year Meller and Hirsch brought out their monograph called "Rhinogenic Retrobulbar Neuritis" and which was reviewed in the "Archives of Ophthalmology" in September, 1927. In this article, the investigations of Herzog are noted in which he has shown that the optic nerve is involved, not necessarily by destruction of the intervening bony wall, but by extension of an inflammation along the medullary spaces in the intact bone from the sphenoid cavity to the optic nerve sheath. Herzog believes that this inflammation extends along performed vessels and lymph channels through the medullary spaces in the intervening bone, producing an inflammatory edema of the optic nerve sheath. This edema of the nerve sheath acts like a catarrhal inflammation which responds favorably to the action of cocain and adrenalin by shrinking. This, possibly, explains why some cases recover without operative treatment. The results of these later investigations by Herzog have met with the approval of many of the foremost ophthalmologists and rhinologists.

Symptoms. The patient seeks the ophthalmologist complaining of a sudden reduction of vision in one eye. Things appear 'foggy' to him and as time goes on the condition becomes progressively worse so that, in severe cases, in a few days even light perception may be lost. Headache is a frequent symptom and is usually referred to the back of the eye, often made worse by pressure on the eyeball. Pain on extreme movement of the eye is occasionally complained of. The pupil of the affected eye is usually larger and responds to light sluggishly, returning to its original size after a short period while still under the di-

rect stimulus of the light. In severe cases, the pupil is decidedly larger than its fellow and pupillary reflex is lost. The fundus usually appears normal at first but later there is some blurring of the disc and tortuosity of the vessels. In rare cases, a definite papillitis has been observed. Fields are most important and are of diagnostic value. They are best taken on a screen, the Thomassen modification being a very suitable type. The characteristic feature is the presence of a central scotoma. This scotoma may vary in size, being separate from the blind spot or including it. In severe acute cases, the peripheral fields may also be obliterated. Production of this central scotoma is probably due to pressure of the edema of the optic nerve sheath on the nerve itself. As this pressure is felt equally in the center of the nerve and on the periphery, the delicate and sensitive fibers supplying the macular region are first affected. An enlarged blind spot is occasionally present, and is a constant sign in chronic cases.

Among other conditions which have to be differentiated from this are toxic amblyopia, congenital amblyopia, hysteria, malingering, multiple sclerosis, and optic neuritis from focal and systemic infection. The cases of toxic amblyopia will give a history of slow onset, of over-indulgence in drinking or smoking, or the taking of large doses of quinin; small central scotoma for colors will be found and the loss of vision is not confined to 1 eye although there is a difference in degree between the 2 eyes. In congenital amblyopia, there is usually a history of poor vision for a long time in 1 eye, but sometimes it has just recently been discovered; on examination, a considerable error in refraction of that eye will be found; the condition is also not a progressive one. Hysteria may be recognized by the history and the typical tubular fields. Malingering may be detected by careful tests used for this purpose. Usually in multiple sclerosis, both eyes are affected, there is a peculiar nystagmus on fixation, and the presence of a paralysis of one of the extremities, with a fine tremor. However, sometimes the differentiation is very difficult, and more than one case has been operated upon which later developed multiple sclerosis. Optic neuritis following systemic infections will give a history of scarlet fever, typhoid, or some other acute, infectious disease, and both eyes will frequently be involved. A careful examination of the urine will rule out an optic neuritis due to albuminuria or diabetic affection. After focal infections, such as diseased tonsils or apical abscesses, the reduction of vision is not so progressive, the fields do not show a central scotoma, and as a rule, there is a definite neuroretinitis. In some cases, when in doubt, a radiogram will be required.

Finally, as a confirmation of the diagnosis, a careful x-ray examination of the sinuses should be made and interpreted by a competent roentgenologist.

Treatment. Of late the tendency in these cases is not to operate. Many leading ophthalmologists and rhinologists feel that these cases do just as well without operation. The theory that the cause of the neuritis is due to an inflammatory edema which yields to the action of adrenalin leads to the question, why not treat these cases medically. Hirsch, in his book, advises that the mucous membrane of the nose be contracted by the use of adrenalin followed by argyrol tampons. This treatment is to be repeated frequently, but, if at the end of a few days, there is no improvement, then the sinuses are to be opened. In my own experience, while working out the diagnosis and suspecting a sinusitis, I always order an adrenalin spray (1:4000) to be used every 3 hr., but the moment I decide that I am dealing with an acute retrobulbar neuritis secondary to an infection of the sphenoid or posterior ethmoid, I advise immediate operation on those sinuses. I cannot help but feel that palliative treatment, while it may relieve at the time, leaves the patient open to recurring attacks which may be far more disastrous and less responsive to treatment either medically or surgically.

Report of Cases

Case 1. Mrs. C. H. M., aged 30, was first seen by me on May 1, 1927, with complaint of sudden and progressive loss of vision of right eye for 2 days; sensation of stuffiness in nose and pain on movement of right eye.

Vision right eye equalled hand movements in lower temporal field. Pupil diameter 5 mm. reacted to light but soon returned to the same size while under the stimulus of light. Fundus appeared normal. Fields, hand movements in lower temporal field. Left eye, vision 20/20 and appearance normal. Diagnosis was retrobulbar neuritis of possible sinus origin. May 2, examination of nose by Dr. Craig was negative. X-ray examination of sinuses by Dr. Dixon showed cloudiness in right sphenoid. Vision R. E. reduced to light perception in lower temporal field. Fundus showed haziness of optic disc and tortuosity of vessels. Family physician reported Wassermann negative 3 months previously. May 3, operation by Dr. Craig on right sphenoid and posterior ethmoid. No pus found. Vision, no light perception. May 5, marked reaction following operation. No light perception. Pupil inactive to light; 1 D. swelling of optic disc and marked tortuosity of retinal veins. May 6, following irrigation of sphenoid cavity, light perception appeared in lower temporal field. May 7, hand movements in same field. May 10, hand movements in upper and lower temporal field. May 18, large central scotoma of 20″; temporal side of disc becoming outlined; less swelling of veins. May 24, recovery slow. Patient complained of numbness in fingers, slight tremor, and general weakness of limbs. Dr. Michaelofsky reported exaggerated knee-jerks, marked diminution of abdominal reflexes, increased fatigability of muscles of the hand suggesting disseminated sclerosis. On his advice, cocain which had been used previous to irrigation of sinuses twice a day was stopped. June 1, marked improvement; vision, fingers at 10 feet. June 8, vision 20/50; scotoma small; disc clearly oultined but pale. June 27, vision 20/20-1; no change. August 8, vision 20/20-1; small ringlike scotoma; disc definitely pale.

On June 1, 1928, vision 20/20; optic disc pale; no central scotoma; blind spot slightly enlarged. An interesting feature of this case was the poisonous action of cocain used twice a day before irrigation, which retarded improvement, and the immediate change shown as soon as the cocain was stopped.

Case 2. P. F., aged 24, was first seen by me on July 2, 1927, because of a "cloud" before the left eye for 2 days, and pain on moving eye and severe headache which seemed to be at back of the eye; no history of smoking or drinking. Vision of right eye was 20/20 and appearance normal. Vision of left eye 20/200, pupil 3 mm., reacted sluggishly to light. Optic disc hazy. Field showed a large central scotoma. July 5, vision 10/200 and scotoma increased. Dr. Craig reported nose negative on examination, while Dr. Dixon reported sphenoid cloudy in x-ray picture. Wassermann negative. July 7, left sphenoid opened by Dr. Craig, no pus found. July 10, moderate reaction; vision 20/200. July 20, vision 20/50; disc becoming outlined; scotoma less. July 30, vision 20/30; fundus appeared normal; small central scotoma. Sept. 13, vision 20/20; temporal side of disc somewhat pale; small scotoma above.

April 22, 1928, vision 20/20-2; disc shows temporal pallor and small scotoma still remains above.

In conclusion, I would urge the necessity of early diagnosis of these cases; careful and frequent use of the screen to measure the fields and note progress of the case; and, finally, sincere coöperation with the rhinologist and roentgenologist in arriving at a diagnosis and method of treatment.

DISCUSSION

Dr. Henry C. Barkhorn (Newark): I was very much gratified to hear these 2 classical case reports. Of course, if you read the literature now you find that White, for instance, has completely reversed his position, and that so busy a man as Dr. Eagleton perhaps has seen only 3 cases or so in his whole career. They are exceptionally rare, but when they do occur they are very real. I have had cases in which I have gotten a cure by opening the sphenoid and posterior ethmoid; I have had cases where I have gotten a cure by opening the sphenoid and ethmoid and taking out the tonsils at the same time; I have gotten a cure in some case by taking out the tonsils alone. There is something to it which we have not yet touched. White today says that it is a focal infection in the presence of a narrow optic canal. It is quite possible that this is so. The miracle happened years ago by pulling out teeth, and so forth, and the miracle is still happening without interference with the sphenoid.

Dr. Wells P. Eagleton (Newark): I had 1 of

these cases; Dr. Barkhorn had 1, and Dr. Hurff had 1, so we undertook to collect all the cases that had been operated on at the Eye and Ear Infirmary and analyze them, and show something that was mentioned this morning without emphasis being placed on it: namely, how you can diagnose these cases. It is an inflammatory process that involves, as it has to involve, from the accessory sinus, whether it goes through the cuneiform waves or whether it goes by continuity of bone or by continuity of periosteum. I think that it goes by continuity of periosteum because that is the part of the bone which is most apt to be affected. Whichever way it goes, it reaches the ring of Zinn which completely surrounds the optic foramen, to which is attached every one of the muscles that move the eyeball distally, and if it is a true case, if you press the eye back in the orbit, it hurts, or if it is a true case, as Dr. Gibb's case was, when they move the eye it hurts.

The diagnosis of my case was made by Dr. J. U. Bissett, and he pressed back the eye in the orbit and said, "Doctor, it's tender when I shove the eyeball back". So far as I know, that had never been observed before. Then of course we got thinking about the thing and found that all 3 cases in the Infirmary had that symptom, and here comes along another true case in which he speaks of the fact that when the eye was moved, it hurt; and why shouldn't it hurt? It should hurt if it is due to inflammation and not to a vascular change, because of the fact that the area involved in the disease must be the bone on which is placed the ring of Zinn, to which is attached all the ocular muscles.

Dr. Linn Emerson (Orange): I think I have a case of this sort that I saw first last Monday, and I am going back and punch her eye tomorrow morning. (Laughter). The history is that 3 days before I saw her she went totally blind in one eye. She is ophthalmoscopically negative; has very slow reaction to light and no macroscopic involvement of the sinuses. Dr. Tymeson looked her over and she was sent to Dr. Peabody, of South Orange, for x-ray examination, and I suppose the picture will be ready for me to look at when I return tomorrow, but I am very glad to have heard this point about tenderness on moving the eye and on pressure. I shall try this out on my patient first thing in the morning. I am not sure of my diagnosis but at first blush that was the diagnosis I made.

Dr. W. Blake Gibb (closing discussion): I am glad my paper caused some little discussion. I know it is a very moot question, as to acute retrobulbar neuritis being caused by inflammation of the sphenoid sinus. I realized especially that little point which Dr. Eagleton brought out. I am sorry I did not emphasize that in my paper this morning. Dr. Knapp, I think, impressed that point on me in making my diagnosis.

One other point I was hoping someone would discuss was the question of operation in these cases. I feel that when you have a patient who has lost the vision of one eye, medical treatment by tampons should not be considered. I think that the operation of opening up the sinus, giving free ventilation, causing reduction of the edematous condition, is much more valuable than waiting for temporizing medical treatment.

THE NASAL SEPTUM AS A FACTOR IN STENOSIS

THEODORE W. CORWIN, M.D., F.A.C.S.,
Newark, N. J.

(Read before the Annual Meeting of the New Jersey Medical Society, Atlantic City, N. J., June 7, 1928)

Cell respiration is one of the primary activities of life, since it helps to develop energy; a large percentage of which energy is consumed in correlating this function of respiration to our atmosphere. Nasal respiration concerns the conduction of air through the nose and we will consider the forces used and the resistances they meet.

The forces are the respiratory muscles acting from within, and the atmospheric tension acting from without. Geographically, we are a part of the atmosphere. Our atmosphere exists under a positive pressure tension of 15 lb. to the square inch. The breath has the tension it derives from the atmosphere, but as modified by the respiratory movements of the chest walls and the resistance to its flow. Most obstruction is met in the nose, the narrowest part of the tract. In inspiration, the cavity of the chest is enlarged and the breath area expanded. The breath enters, and in doing so loses part of its tension by being distributed into a larger space—or becomes diluted, as it were—and tension being then lower than that of the outside air, the latter enters as rapidly as the walls permit, and again raises the tension to its own level. Expiration follows with an opposite effect. It reduces the chest volume and compresses its air content, thereby raising the breath tension above that of the atmosphere into which it is then distributed as rapidly as it can overcome resistance of the nasal channels. The breath thus acquires waves of high tension from first one and then the other end of the tract, and it takes its direction accordingly. Normal nasal breathing is permitted when the forces and the resistance are properly proportioned—when nasal function is active and the respiratory muscles are exerted within their normal capacity.

Nasal Stenosis

This spells *insufficiency,* whether developmental or acquired, or both. We will consider it only as it occurs chronically, for it lies at the bottom of many of the symptoms with which we have to deal. Mouth breathing is its steady advertiser. Stenosis is frequently associated with insufficient growth of the face. Adenoid and tonsil enlargement cause mouth breathing and, therefore, *disuse* of the nose. This seems especially important at certain periods because disuse limits growth of all the face tissues and bones. The superior maxillary and the palate bones, which should enlarge and reach outward and downward, fail of this extension. The palate remains small, narrow and high, and with it, of course, the nasal floor. The nose as a whole is then *undergrown,* and we have general nasal stenosis.

The nose cannot then hold a full-sized septum, but the latter, having some independent growth, curves upon itself—or its lower border rides over the crests to which it is attached below, and projects into one or other naris; much thickening attends and materially increases the mechanical obstruction. In addition to obstruction, contacts are often made with one or both lateral nasal walls and these provoke great irritation, as is shown by the nervous reflexes of sneezing, lachrymation, and also local and general exhaustion.

Stenosis of the nose may be defined as a deficiency in size of its main breath conduction channels, or of either one. The external nose shows a graceful triangularity, in most aspects. The internal nose is roughly triangular on vertical cross section; disregarding the accessory sinuses, it resembles an isosceles triangle. If a septal wall occupy the midline, the space on each side will be enclosed within the lines of a right-angled triangle; which is approximately the outline of each nasal fossa, on cross section. It may be noted, however, that while the septum and floor form comparatively straight lines, the outer line is different—in being bellied—because the lateral wall contains the turbinal processes, which nearly fill the space within. All these walls and channels widen as they lead back to the postnasal space, and do so symmetrically. Thus, we find the contours of the respiratory channels within to differ widely from those of the external walls, both in the skeleton and in life. That is to say, we find each breath channel to exist only as a *chink.*

This is an important consideration, because a chink is a narrow channel which requires but a very slight deviation of its wall either to close or to open the channel. These respiratory chinks are not simple, but *compound,* for each consists of a main vertical slit running along the septum, and of smaller horizontal communicating slits running between the turbinals and along the floor. The ingoing air enters most rapidly along the main chink, as shown by experiments with dust, and its course is directed upward to the attic region, and thence backward. The symmetry of this performance is, of course, destroyed by malpositions of the septal wall.

We are interested to consider what is the narrowest part of each chink? This corresponds to the narrowest part of the bony fossa, situated at the apertura pyriformis, or pear-shaped opening in the face bones. Forward is the vestibule; behind is the *internal* nose, which we may call the nasal chamber. Here the mucous membrane is at the height of its development, especially that of the outer turbinated walls. Here its blood-vessels are enormous, especially its veins, which rise from capillaries to form the erectile tissue. These, when relaxed, can fill each channel and close off respiration. Their caliber is controlled through the vasomotor nerves, and is thus adapted to the functional needs of the organ. Under morbid influences this control is commonly perverted. When feebly exerted, the vessel contents may gravitate to dependent parts in accordance with changing postures of the head. When the vasomotor grasp on the erectile tissue is deranged, limited segments may become knotted and, growing firm, act like foreign bodies. These may move in response to forcible air currents. Patients usually think them to be clots of mucus, and endeavor to expel them. Vasomotor stimulation by cocain, adrenalin, menthol, or withdrawal of the blood to other parts, as by strong exercise or hot baths, usually dissipates these conditions promptly.

Alternating respiration, from one to the other naris, may occur from changes of the vasomotor tonus.

But where does the septum come in? It is the central part or wall which enters into and promotes all the functions of the nose, their symmetry and equality, by being equally related to them—by dividing them equally—by being in itself a vertical sagittal wall running medially in all its parts and supporting a mucous membrane with little differentiation. Any deviation from its median course vastly impairs its function, and materially reduces that of the nose as a whole. The septum encounters the breath currents at the most rapid and tense part of their course—especially at that part of the septum where the nasal channels are of smallest caliber, where it passes through the apertura pyriformis, where its lining changes from dermal to mucous character. The septum in this proximity is most exposed to conditions of the incoming breath which contrast with its own. Where *it* is fixed, the air is moving, often rapidly, and notably so when the nose is violently blown; where *it* is moist, the air is dry and eager for moisture; where *it* is warm, the air from without is cold or frigid; where *it* is clean, the air is dirty, smoky, often foul and septic; where the septum is delicate the air is often violent, full of dust, perhaps sharp and cutting; where it is at rest, rough use of the handkerchief abrades it even to bleeding. The septum is, therefore, subject to great strain, especially when subjected to the burdens imposed by modern life. When this strain is unequally divided, overstrain of some part results.

The septum also acts as a support to the dorsum and tip of the nose below the margin of the nasal bones, where its quadrilateral cartilage presents a free border, and forms 2 flaps which become the superior lateral cartilages. At its lower border, this cartilage splits so as to enclose the nasal spine of the intermaxillary bone, and further back it fits into the expanded margin of the vomer. The cartilage has a free border between the tip and the nasal spine, and bears only the columellar cartilage and its skin investment. Maliniak speaks of this segment conveying support to the nasal tip from the nasal spine, and claims that the latter should not be wholly removed, but only reduced sagitally.

Deviation occurs in the great majority of cases at what is normally the narrowest part of the nose. It usually reaches a considerable distance back, and is often increased by spurs and other distortions. The point of greatest stenosis may then be shifted to any part of its course. When breathing is conducted with considerable force, the increased tension in the passages, both positive and negative, is exerted also *outside* the air channels upon everything movable inside the firm bony walls. As an instance, the blood in the erectile tissues is subjected to it. Even outside the nose, the venous and lymph circulations may become impaired. Aprosexia, called by Bosworth "the blanket upon the brain" may thus arise. I have often observed that obstructive lesions of the nose are apt to be associated with congestion of the parts posterior to them, notably the posterior turbinal tips, and that these are liable to become hyperplastic.

Septal Deviation

This condition is simple or complicated; simple when its sides remain parallel, so that no thickening is present; complex when there is thickening and the deviation of one side differs from that of the other. Deviations, in addition to destroying the symmetry of the nasal channels, disarrange function and disturb the play of forces therein. We cannot begin now to describe these disabilities, but must be content with stating that they bring disastrous results, both near and far, as you well know. So far as a deviation rises from developmental deficiency, it adds mechanical obstruction to the breath channels where capacity is already below par. So far as deviations occur from injury, restoration becomes more feasible, unless superimposed on developmental stenosis. Traumatic cases are commonly asociated with external deviations, but deflection of the external nose does frequently occur without apparent trauma, and as the outcome of persistent growth of the septal cartilage. I have frequently observed that on removal of a large segment of a deflected septum, the curvature which it presented while in the nose disappeared at once

on its withdrawal. This indicates that it was in a state of tension—continuous tension—while located in the nose. Further, it is commonly noted that when external deviation exists, resection of the septum alone and without other intervention is followed by restoration of the deviated external nose to its normal direction.

Practical significance is seen in the results of such irregularities; thus when one channel is partly or wholly closed and the other is widely open, the function of the narrow side is abolished, or so reduced that it amounts to little, while on the open side the greater current permitted will overwork the functioning capacity of the mucous membrane and cause it to be irritable and commonly spasmodic in operation, though all the time *insufficient*. Widening of one channel cannot make up for stenosis of its fellow because no more of the functioning mucosa is thus brought into service, but the increased flow of breath on that side is liable to cause irritation and crusting in the nasopharynx. Impaired resistance to colds and other infections waits on such conditions.

One of the curious incidents of this condition is that the more open channel often seems to the patient more closed than the narrow one, and vice versa. This seems to arise in this way: When the open side fails to supply enough moisture to the incoming breath, its own surface becomes dry and perhaps crusted, and this creates the sensation of clogging of the passage. He will claim that the passage is stopped, when inspection shows it entirely open. I have observed this paradox many, many times. The mirror test will bring conviction.

Operative Treatment; Preventive and Corrective

Prevention of stenosis should, when possible, be undertaken before the septum has become deviated. When, after removal of tonsils and adenoids, *mouth breathing persists,* there will frequently be found *underdevelopment* of the face and of the respiratory tract. It is important to remember, in this connection, that the face is built largely around the teeth, both deciduous and permanent. Healthy dentition develops and expands the face bones, and thus enlarges the nasal channels and corrects mouth breathing. The septum can then develop normally. Management of such cases is often most efficiently conducted under the principles of orthodontia. It is most practical while the tissues of the face are plastic.

Surgical Correction of Deviations

We cannot consider this matter at length. The attitude of the surgeon to the nasal septum in the early days of rhinology was quite different from that of our day. Then, the septum was regarded with awe and approached piecemeal. The modes of attack were legion, and included cutting, sawing, boring, cauterizing, filing, pinning, punching, and the like, necessitating a workshop and a course in mechanics. Many results were obtained, good and bad but usually incomplete, and recurrence was frequent. The great obstacle to satisfactory results was the *resiliency* of the septum, around which endless discussion was carried on until we learned to take the cartilage *out* "body, boots and all". Submucous resection of the deviated septal cartilage and bone was first undertaken in France.

Septal Submucous Resection

An account of this new method was presented to the American Laryngological, Rhinological and Otological Society at a meeting in Boston. I had the privilege of being there, and remember the gusto with which the news was received. I at once undertook the method in my clinical and private work, in common with all my brethren. Even cases complicated by spurs, scars, adhesions and perforations gave best results when handled by this procedure, and so a radical change, amounting to a revolution, came over rhinology and put it on a more respected basis.

This operation restores the septum and each wall of it to the median position, and thus restores the channel and the breath tension to normal quantities. The tendency to congestive disturbances of the whole respiratory tract behind the deviation often quits

instanter, and the patient feels a new life open to him. I can speak from experience, as well as a fairly broad observation.

Its benefits comprise: Deeper and more comfortable breathing; calmer sleeping and a clearer head; relief of chronic postnasal discharge; improvement of voice and hearing; prevention of catarrhs; improvement of the general health; and increased efficiency.

DISCUSSION

Dr. Henry C. Barkhorn (Newark): It is always a joy to discuss one of Dr. Corwin's essays, and today, on a very unique philosophy, Dr. Corwin has built a very practical paper. Accepting the doctor's physiology as correct—and of course it is correct—the pathology must necessarily follow. If you think back on the olden days, and I jumped into or crept into rhinology with the change between tonsillotomies and tonsillectomies, and between the Asch operation and the submucous resection, so I still recollect some of the older methods such as the pinning and the crushing, and all sorts of things that they tried to do in an endeavor to keep an elastic body in position. We all remember how chromic acid fumes hit the chink of the nose, are thrown over on to the septum and cause the characteristic perforation that we were all so familiar with in those days. We are all familiar with the redundancy of the mucous membrane on the septum and the crenated appearance just opposite the anterior end of the middle turbinate, that Dr. Corwin so ably speaks of. Taking these things all in all, it is quite obvious that the miracle of restored nasal breathing and the miracle of cessation of polypoid hypertropy of the turbinates, of sinus disease, of tinnitus, of that symptom of all symptoms so far as the patient is concerned—catarrh, which disappears when the fundamental stenotic element, the deflected septum, is corrected, and corrected by modern submucous operation, is striking.

I would like to ask Dr. Corwin to discuss a little bit the technic of anesthetization for his method of doing the submucous resection. It pleased me to have Dr. Corwin draw attention to the fact that it is the lack of moisture in the wide open side of a deflected septum that makes the patient often complain, not as you would expect, of the narrow side, but that the wider side is obstructed, and if you then have the patient moisten his finger and wet the wide side or put a little oil or salve or any of the things that add to the moisture of that side, into that nostril, without doing anything on the other side, he promptly says, "Oh, yes, I am breathing much better now", and still the volume of air going in is exactly the same. It is the addition of moisture. Then, after the submucous is done and the same amount of air goes through both sides, causing a proportionate instead of a disproportionate amount of evaporation, he is restored to a new and healthier and less querulous being.

There is, however, so much of both the art and science of rhinology in this paper of Dr. Corwin's that I am sure we will all profit very much more after we have read it at our leisure and digested it. It is fairly hard to follow, and one must study it. I think we all owe a real debt of gratitude to Dr. Corwin for having brought this subject to our attention in so concise a manner and with so much real meat. It is a great privilege to discuss this paper.

Dr. Charles S. McGivern (Atlantic City): I have always felt that the septum is the most important factor in nasal work; that you can't get any place with any nasal operation or any sinus operation, except possibly the maxillary sinus, unless you first have a straight septum. Unfortunately, septum operations are in a great many instances done very badly. I think a septum operation is the most difficult operation in surgery to do well, and I am surprised many, many times when I think I have a perfectly straight septum and have done a particularly good septum job, to find when the patient comes back that it is tending toward one side or the other, and I was perfectly confident after I had done the resection on that patient, that I had done a good one. A good many cases come into your office that have a hump up above and a ridge down below which prevent proper aëration of the sphenoid and the ethmoids. I have come to the point now where I prefer perforating it to leaving any obstruction and I have found also that I get a great deal better results using the Halle type of flap. I think you can, in almost all instances, avoid a perforation by sewing the flaps up, and I do it routinely now leaving out the packing. I just put 2 stitches in the flaps from as far back as I can get in the nose and bring them forward going through the cartilage in front and tie on the opposite side. Perhaps on the deviated side one may need a little strip of packing to hold the flap in position.

There is one thing I would like to know, and that is how to keep the nose from sinking after a submucous resection. What is it that makes the nose sink? I have started them far back and far forward, and I find that some of them sink and some of them don't. I have heard as an explanation of it, taking too much of the cartilage out in front, but even when I have tried to begin well back I got sinking and I don't understand why this occurs.

Dr. Theodore W. Corwin (closing discussion): In reply to Dr. Barkhorn's discussion, I do not use any particular method but the method I began with is usually very satisfactory. I usually pack the nose with a solution of 8% cocain, containing adrenalin in a small percentage, and I have had no trouble. I haven't hesitated to use that very freely. I take a small piece of cotton and stretch it out until it is quite thin; then saturate it with solution, and squeeze it out so as not to get excess of solution. I spread the layer of cotton containing the solution on the whole length of the septum or over what I intend to operate on, and leave it there while I attend to some other work. I leave it there for probably 1 to 1½ hr. I think you can leave it in contact with the membrane too long so as to have secondary relaxation occur and then your adrenalin is no good, but still if the septum is subjected to that influence for half an hour you will get pretty good anesthesia, entirely satisfactory, and I have had no trouble with it. At the same time, circumstances may modify it a little bit. You may for some reason or other find that your patient displaced the cotton or some other circumstance has occurred and you won't have time to wait another half hour, and in that case I don't hesitate to inject procain under the mucous membrane. In that case I am quite particular not to add adrenalin because in a number of cases I have had sudden collapse occur to patients, and

on 2 or 3 occasions I have had an epileptoid seizure occur in my chair. I thought at first it was due to cocain but that soon became ruled out and I found it was due to the adrenalin, so I am very cautious about putting any adrenalin into the submucous tissues of the nose. I think Dr. Barkhorn frequently injects novocain over the length of the tissue which he is operating upon. I haven't found it necessary but I have often supplemented one method with the other, where one method might have failed or seemed to be inefficient.

In addition to that I see that the patient gets a thorough anesthesia, and by calming the patient and reassuring him beforehand, I have gotten along with almost every one of them and I have a reputation with my patients as a sort of a painless operator. At all events, I have had little complaint or difficulty. Of course, I do precede the operation by an injection of morphin and hyoscin. For an adult, I give morphin gr. ¼ and hyoscin hydrobromide gr. 1/100. I have had no reason to feel that was inappropriate at all. Of course, some people get a little more effect from it than others do, but the effect has been so satisfactory that I haven't hesitated in the matter, and I do a great many of these operations in my office; they all get home all right and they came back the next day.

With regard to Dr. McGivern's suggestion, he speaks of the septum not always staying in place. One thing that occurred to me was an observation that struck me very forcibly quite a good many years ago. In reading the literature I found an article by one of the fathers of rhinology, Dr. Chevalier Jackson, whose ability has been demonstrated in many other directions than intra-oral endoscopy. He said he found frequently that the septum would be back in the old place the next morning after operation. I don't think that submucous resections were then so much in vogue, but he found the septum back in its old place a few hours afterward, and he said he went into the home of one of his patients and looked into his nose with a speculum while recumbent and he found that the inferior turbinate was so large that it made the septum go back to the old place. He found that if he clipped off the inferior turbinate before he did the operation of submucous resection, it added considerably to the success of the operation and prevented the septum from going back to the old place.

As to the flap, I generally operate through a semi-vertical incision which goes through the cutaneous tissue, the dermal tissue of the nose. I seldom commence an operation in the mucous membrane. If you are going to stitch the wound, you want it to have some firm, fibrous tissue in it so that the stitch will take hold and not merely go through. Oftentimes it is desirable to have a fibrous character to the tissue. At all events, if the incision is far down near the orifice of the nares, it is within your control and you can readily stitch it, and do it quicker, and it is a decidedly preferable way. In some few cases where the deviation gives acute angles, I may convey the incision along the junction with the floor on the convex side a considerable distance, so as to enable me to separate the flap fully and freely from the septal cartilage and down to the floor. My practice has been usually not to carry it very far back but to get the resection made through only a moderately sized opening well forward. Of course I always use retractors, like Carter retractors, or some others which hold the aponeurotic canal widely open, but I think it is very often desirable to make a long incision rather than to put the parts unduly under stress. Resection is not difficult.

The doctor speaks of trying to avoid any falling of the dorsum. I think that the main factor that leads to falling of the dorsum, where you have done an operation which you think is going to be all right, is infection. I think the cartilage between the part that you have resected and the top level of the nose, the dorsal line, becomes softened as the result of infection, and I don't mean necessarily an infection which results in the production of pus and what-not, and I don't mean an infection which results in a swelling of the nose and a great deal of redness and soreness, but I believe a great deal of mild infection oftentimes occurs which does soften the cartilage and causes it to shrink and to settle. I have had a few infections and they mostly occurred higher up on the nose in the bony region and never produced any falling of the nose. I have not had a great many patients with falling of the nose. I have resected over 1000 cases and I don't know of over half a dozen cases which showed falling of the nose.

In addition, I didn't touch on the matter of supporting the septum after operation. I have taken these rubber glove fingers and introduced one into each naris, first putting on a packer, then the rubber finger is introduced into the naris and the gauze strip pushed into it. Use another on the other side. These give the septum support. The next morning or within 18 hr. later, you remove these and they slip out as easily as if greased. In other words, the first dressing is not a matter of pain to the patient. You then find your septum in good position, and it has been my practice to introduce a powder which acts as an antiseptic. You take a little aristol and boric acid and blow into the nose. I think these things have enabled me to carry on with a great deal of satisfaction. In a great many cases I have used a metal splint which avoids altogether using any packing. You introduce the metal splint for support and don't need to take it out the next day but can leave it in for 4 or 5 days. It is taken out by expanding it at the angle in front, as widely as possible, and then slipping it out. I find it can be left there and give good support without producing any septic trouble.

ACCESSORY SINUS INFECTION

C. Eugene Darby, M.D.,
Ocean City, N. J.

(Read before the Ocean City Medical Club, April 19, 1928)

My brief, in presenting such a subject as accessory sinus infection, is based upon my belief that during this past winter and spring almost all physicians have been called upon to treat an unusual number of cases of acute accessory sinus diseases due, possibly, to the character and virulence of infections of the upper respiratory tract and also possibly be-

cause we are becoming each year more on the *qui vive* in their detection. In the past, acute sinusitis has often been overlooked unless the patient was suffering from acute pain which would attract attention to an involved sinus. Fortunately; many cases do not develop pain at any time but these may need treatment as much as the more painful infections. The absence of pain may be accounted for when an involved sinus has sufficient drainage and aëration. In such cases, the chief symptom to draw attention to a sinus inflammation is apt to be a profuse discharge continuing long after the usual duration of an acute coryza, and after the nasal symptoms of cold have subsided.

In considering any of the accessory sinuses, we must keep in mind that the lining of the sinus is a continuation of the membranes of the nose. For this reason, the sinuses all are susceptible to any inflammation that may affect the upper respiratory tract, and sinusitis often develops simultaneously with inflammatory infections of the nasal or postnasal cavities.

Pain, as a symptom, is due to swelling of the mucous membrane of the nose or to any other pathologic condition in the nasal cavity that causes blockage of the normal outlets of the sinuses. This pain chiefly results from 2 causes; blockage and production of negative pressure within the sinus; or blockage and production of positive pressure from excretion within the sinus.

In speaking of the upper respiratory infections that most frequently produce sinus involvement, we should first mention acute catarrhal fever, influenza, pneumonia, acute tonsilitis and the acute exanthems; Vincent's angina, diseased teeth, and necrosis of the jaw should also be considered.

Considering the pathology, after extension by continuity or contiguity, and sometimes by the medium of the lymphatics, the lining membranes become congested, red, swollen and edematous. During this congestive stage, pain from negative pressure usually develops. Later, secretion is formed and, filling the sinus with a serous, mucoid, mucopurulent or even purulent and sometimes bloody secretion, produces positive pressure pain.

In the early stage, the general symptoms of acute sinusitis are those of an acute cold in the head plus pain or tenderness in or near the affected sinus. The character of the pain varies from a dull aching or soreness to a more aggravated neuralgic type which is made worse by motions of the head. The discharge, if drainage is present, varies in type, as just mentioned, and may be with or without odor. Temperature in these cases with drainage is normal or only slightly elevated, while with obstruction there is usually more fever. Many cases, fortunately, do not develop complete obstruction of the sinus outlets. The patient suffers little pain and the free drainage that is established when nasal inflammation subsides, permits of healing without special treatment. Another symptom which is often helpful in directing one's attention to the sinuses is the blurring or absence of the sensations of taste and smell. This is probably purely a mechanical result from engorgement of the turbinate bodies and the accompanying inflammation of membranes of sense of smell.

Office examination of the nose, with the speculum, is helpful in determining existence of these conditions. First the floor of the nose should be cleansed of secretion; then, if there is apparent streaking of mucous from under the anterior end of the middle turbinate, this secretion should be wiped away. The prompt re-appearance of this mucous streak is very suggestive of sinus involvement. If there is complete obstruction to drainage, it will be necessary to shrink the anterior end of the middle turbinate with adrenalin or cocain to elicit this very valuable finding. This may be followed by transillumination, which often gives good positive evidence, but negatively is not conclusive. Examination of the posterior nares and nasal pharynx by means of the nasal pharyngoscope is of great value, particularly in children, for definite detection of the presence of adenoid growth and condition of the postnasal space. Postnasal obstruction may definitely delay recovery.

I have gone over very briefly the symptoms of sinusitis in general and it may be well to now consider the definite sinuses a little more in detail. In acute maxillary sinusitis there

is pain and sensitiveness over the maxillary bone, frequently radiating to the teeth or to the orbital cavity. This sometimes may be referred to the ear. With this pain there are periods of remission and often recurrences at the same hour each day. In this antrum infection, diseased teeth must always be kept in mind, as frequently a canine or one of the first or second upper molars may be the source of infection. In these cases, radiography or extraction of the suspected offending tooth will establish diagnosis. In the absence of suggestive symptoms, puncture of the antrum may be necessary to establish diagnosis. In frontal sinusitis the pain is usually definitely localized over the eye and is more intense just above the inner portion of the eyebrow. Acute pain in these cases may be elicited by pressure on the upper wall of the orbit or by gently tapping over the frontal sinus itself. This pain is usually aggravated by bending over, by coughing, and by blowing the nose, and may be referred to the ear on the affected side or the entire side of the head. Periodicity of pain recurrence is also characteristic in this condition. In acute ethmoiditis the symptoms are similar to those of acute cold in the head. The discharge from the anterior cells is anteriorly into the middle meatus, as is the discharge from both antrum and frontal infections, while discharge from the posterior cells of the ethmoid is posteriorly into the postnasal space. I frankly admit that I have never been able to definitely determine discharge in the postnasal space from ethmoid sinusitis. In this ethmoid infection, swelling of the outer wall of the nose will be observed, obstructing a view of the middle turbinates. The symptoms are pain at the base of the nose, tenderness of the orbital plate and swelling of the soft tissues, occasionally to such a degree that there is displacement of the eyeball outward on the affected side. In acute sphenoid sinusitis the pain is deep seated, often referred to the occiput, and at times to the ears, simulating an acute otitis media. This pain also is aggravated by bending, coughing and motions of the head, and by breathing cold air through the nares. The eye symptoms are usually deep seated pain in back of the eyes with sometimes blurring of vision and diplopia, vertigo and nausea, and feeling as if the head would burst. The discharge which comes through the throat from the postnasal space may be thin but is more frequently thick, yellow or greenish-yellow, tenacious and tinged with blood. The diagnosis of sphenoid sinusitis can be made by the character of the deep seated pain, the ocular symptoms, the discharge into the posterior nares and by x-rays.

The treatment of acute sinusitis, primarily, is drainage. To establish drainage and ventilation of the sinuses is the principal step toward cure. Failure in this leads to serious complications and delayed recovery. Cocain and adrenalin locally are very valuable in shrinking down congested and edematous membranes and turbinates. This alone is usually sufficient to establish drainage and is a simple office procedure. Mild saline or alkaline douches in infants and young children, using a small catheter, is usually sufficient. In some cases the application of soft argyrol packs is very efficacious and in most cases will give immediate relief. Should the case be farther advanced and all of these more common methods fail to secure drainage, irrigation of the sinuses themselves must be resorted to at the hands of a specialist in this work.

The recognition of sinus infection in children demands, I think, our particular attention, as frequently these conditions seem to exist a long time before we discover them. The sinus in infancy and childhood is very often a source of infection for otitis media, bronchitis, the pneumonias, acute endocarditis, rheumatic arthritis and chorea. Medicinal treatment is not specific, but quinin in small doses is effectual in controlling pain and headache in those cases with periodicity of symptoms after drainage has been established. The iodides are also valuable, perhaps because of the thinning effect they have upon mucoid secretions, and also because of their stimulating effect upon the glandular balance.

Mercury, in the form of corrosive sublimate or the iodides, has a beneficial action in stimulating the sinus membrane, and vaccine and serobacterin therapy has been found helpful by some.

The above drugs by no means cover the entire list that may be useful in treatment of accessory sinus infections but they include those most frequently employed. In certain cases where relief from pain is necessary and the measures mentioned have failed, one must resort to the use of analgesics.

While I have not attempted in this short paper to cover the scientific aspects of sinus disease in its minutia nor the therapeutics as practiced with a hospitalized patient by a specialist, I hope it will promote sufficient interest to cause free discussion by all the members of the club as it is really only in this way that we may benefit from these papers and we can all learn something by hearing the experiences of each other in the management and care of so common and frequently occurring a disease as sinusitis.

THE QUESTION OF OPERATION IN ACUTE PURULENT OTITIS MEDIA

E. Blair Sutphen, M.D., F.A.C.S.,
Morristown, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928)

There are hundreds of thousands of chronically discharging ears in the world, and every one of them could have been prevented. They are due, absolutely and without question, to neglect. Neglect which was the fault of the family, or the general physician, or the otologist. We otologists, I believe, are mostly to blame, and the general physician next. Much has been written and is being done concerning the cure of chronic purulent otitis, but I deem prevention more important than cure. It is my purpose, therefore, in this elementary paper to emphasize prevention of the chronic by the cure of the acute infection.

There are 9 primary signs or symptoms that I usually think of in determining the question of simple mastoid operation. They are, in order of their significance, discharge, fundus appearance, tenderness over mastoid emissary vein, type of infection, general appearance of patient, temperature, hearing, blood count, and x-ray picture.

All have their rightful place in determination of our course. But, after all, the discharge—its profusion or scantiness; its recurrence or its cessation; its purulent or hemorrhagic character; its serous or mucoid consistency; and above all, its duration, acuteness or chronicity—is the thing of most importance in every case, and this symptom is the only one having a decided bearing upon my paper.

As to the proper time for operation, I prefer to operate during the second week, for then, generally, there is at last some beginning immunity and cure is usually rapid. I deplore operating before the fifth day of the disease, for I am perfectly certain that cases so early operated upon usually do not make as rapid and satisfactory a recovery as those done a bit later. I do not, however, countenance procrastination beyond the third week, and will go so far as to say that any physician who allows an ear to discharge for 4 weeks without urging an operation is not competent to treat an ear.

There is a certain type of case without alarming symptoms which tends, after 7 to 10 days, to subside, and which, during the third week almost clears up; there remains merely a slight discharge. This type, I consider the hardest to treat and the most dangerous to the patient because, by its very mildness, it becomes disarming and is likely to run into a chronic condition.

How, then, shall we deal with these mild cases whose symptoms all subside except the "moist ear"? Honestly—that is all—and very simply. Remember that our duty with every patient is to save that patient's life, but also to cure his illness. Not only that, but to cure as speedily and comfortably as possible, and not gamble with his health or life. Let us be honest with our patients. Consider them intelligent. Most of them are; and reasonable too. Let us take the time and do them the favor of explaining the situation fully to them. They have the right to know, and really wish to hear. Tell them, when the time comes where there is a question of chronicity occurring in a discharging ear, that a simple mastoid operation is advisable. Tell them what to expect from such an opera-

tion. Tell them it will mean a week or 10 days in the hospital with a few postoperative dressings. After that, visits to the office about every 2 or 3 days for further dressings until the ear is cured. Very little discomfort, a bandage for 3 or 4 weeks, a cure probably in 3 to 5 weeks, a not disfiguring scar, and practically no danger—certainly no more than of any operation with general anesthesia. A fee commensurate with the reputation, ability and dignity of the surgeon but, above all, within the means of the patient. Then tell them of the probable course if procrastination is further practiced. How are they to know if no one tells them? Tell them that the ear may, sooner or later, become dry but it will be with damage to hearing, which may not mean much to those who have not suffered any loss of it, but does mean much to one who has, I can assure you. More likely, it would become a chronically discharging ear. Such an ear would be a constant source of danger. If they wish to know what the danger is, tell them plainly about labyrinthitis, meningitis and brain abscess. But tell them —you must be truthful—that such cases usually do not come to such tragic ends; they merely continue to discharge, call for occasional treatments by physicians, and for constant attention by the patient to prevent acute exacerbations or the unsightliness of discharge, or the foul smell of stagnant pus. Finally, of course, a great many tire of the everlasting bother of the treatment, or, because of secondary symptoms or threatened complications, are glad to resort to operation. Explain to them that such an operation would not then be the *simple* mastoid operation, but a *radical* one, which would involve more danger, more expense, more postoperative discomfort, and, although it probably would afford a dry ear, it could not by any means result in a normal one.

I repeat, that if a physician allows any case to go on to 4 weeks without stating all these facts in detail, and without urging operation, he is neglecting his patient and is guilty, morally at least, of malpractice.

And now, why have so many cases been neglected? Never because of willing dishonesty, but because of ignorance and fear on the part of patients or their families, the ignorance or carelessness of the general physician, or the weakness of the otologist. Why are such patients or their families, or the general physician, ignorant? Because we otologists have not impressed upon them strongly the afore-mentioned facts. Why have we failed here? Because we know that frequently one of these cases will unexpectedly clear up, leaving a fairly useful ear. We fear that, if this occurs, after our warnings and advice, we may get the reputation of being "alarmists", "radical", "too quick to operate". We have a tendency to cater to the general physician and to the laity. Either this, or our weakness has been to wish to coddle our patients and get them through the "easiest" way for them, losing sight of the dangers. Being, perhaps unconsciously, so filled with these thoughts and fears, we forget to fear more for the patient's welfare.

Why are patients or their families fearful? Because they still regard a mastoid operation as one of the most dangerous of operations, and do not realize that a simple mastoidectomy is less dangerous than a simple appendectomy. Many, too, have an exaggerated idea of the painfulness of wound dressings.

Why the carelessness of the general physician? I believe it frequently is due to the fact that many of the border-line cases apparently get well. The discharge often does stop for a shorter or longer period, and on the surface the ear may seem to the general physician to have been cured. Consequently, the ultimate dangers in allowing these mild cases to continue to discharge does not seem to him as grave as it does to us, who see, more often, the end-results.

Summary

A discharging ear may be considered acute up to the end of the third week, and chronic after the end of the fourth week.

An operation may be necessary at any time during the acute stage.

The limit of safety, in any discharging ear, is 3 weeks.

An operation is absolutely demanded in every case of 4 weeks duration.

Such operation is a simple one in name and in fact, and is practically without danger.

Acute purulent otitis media is always curable.

Chronic purulent otitis media is always preventable. It may be curable, but not without a damaged ear.

Our clinic cases are not neglected by us; when medical treatment does not avail, we order and perform operation.

Our private patients must not be neglected; when medical treatment fails, let us explain and urge and perform the operation.

As a general surgeon once said to me—"Why not give a wealthy patient as fair a chance as a poor one?"

Chronic purulent otitis media is the most costly, the most destructive, the most awful ear disease. It is preventable. "An ounce of prevention is worth a pound of cure"—and to that end there must be no question of operating.

AURAL SEPSIS

Henry C. Barkhorn, M.D.,
Newark, N. J.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928)

The life history of all ear infections follows a rather set formula, and from the history and pathologic findings one may forecast what is to be expected in any particular case. A patient suffering with a "cold", through blowing the nose too violently, or some other means develops an earache. The drum ruptures or is opened, discharge follows, and for a week or 10 days all seems to go fairly well, but then there is a rise of temperature, half-headache, restlessness, and sleeplessness. It is at this time that the bone becomes involved; and the mastoid should be opened and exenterated shortly, surely within 3 weeks, after onset of the otalgia.

Another type, far rarer, perhaps 1:20 of all operative mastoids, surely not more than 1:10, follows an acute streptococcic sore throat, measles, scarlet fever, or influenza. It is fulminating in onset, has high fever, rigors, headache, sleeplessness, even a little rigidity of the neck, from the very onset and has no free interval. Such a condition should be operated upon as soon as diagnosed, and should have careful after-care for its course may be stormy at best.

Our first type, as pointed out by Kopetsky, is the coalescing mastoid. It starts as a mucous membrane disease, and then only in the course of time involves the bone by pressure necrosis. Its etiologic factor may be either a nonhemolytic organism or a hemolytic organism acting as a nonhemolytic factor. This infection spreads only by continuity. It takes an appreciable length of time for bone to break down, and for the inner table overlying the dura, the sinus and the labyrinthine capsule, each with its own separate and distinct blood supply from the general mastoid mass, to become involved. This explains why it is safe to procrastinate. In fact, it is far better for the early and rapid convalescence of the patient to let nature throw up a barrier, and to let the disease break down and soften the bone, rather than to perform the mastoid operation early and thus convert what is a mucous membrane disease, or at most a mucoperiostitis, into a traumatic osteomyelitis.

The Pneumococcus Type 3 organism, the Streptococcus mucosa capsulatus, is of this coalescing type, but it does coalesce and break beyond the true mastoid more rapidly than the typical nonhemolytic streptococcus infection; in addition, it is more insidious and whilst the middle ear may have very little involvement and the drum membrane may heal, bleach out, and return to normal, extensive destruction may be going on deep toward the apex or up into the middle or posterior fossa with nothing but a vague sense of fullness or a slight loss of hearing to indicate that something is going wrong. This, however, does not happen within 4 or 5 days; it takes at least 7 and more often 10 days.

The second and rarer type of mastoid infection is the osteothrombophlebitic type, usually called the hemorrhagic mastoid. This is always caused by a hemolytic microörganism; there are hemolytic staphylococci; and the influenzal types are hemolytes, as is our friend of the older literature, the Streptococcus pyogenes. This type of mastoiditis is intravascular from the very onset, and it is in this

type of infection that we get our fulminating complications. McKenzie reports a case in which an intracranial infection took place in the immediate vicinity of a dehiscence; not, however, through the dehiscence but through a neighboring venule. Some of these tiny veins are merely an endothelial layer which breaks down early and cannot be recognized in the pool of pus one finds. Until very recently, this hemorrhagic type of mastoid was thought to be an early stage of the coalescing form. We are now beginning to appreciate more and more that it is an entity which starts as such and ends as such; never coalescing but, sometimes, if operation be unduly delayed, sequestrating and having a large piece of dead bone loose in the mastoid process because of vascular occlusion and destruction of bone en masse. This type of mastoiditis should be operated upon as soon as diagnosed. It can be recognized by the history of an antecedent streptococcal infection; absence of a free interval between the onset of drainage and appearance of tenderness, headache and fever; the serosanguinous discharge; and growth on a blood medium, of the hemolytic organism from the discharge.

If this type of mastoid be recognized within 3 days, or a week at most, and a careful anatomic exenteration of the entire mastoid be performed at once, including the antral, subantral and tip cells, the deep cells in the groove of the sinus with their accompanying cells in the angle of the superior petrosal between the dura and the sinus, separating the middle from the posterior fossa, and also the zygomatic cells (which are, however, not so apt to be involved in this type), a large mass of osteothrombophlebitic material will be removed and the patient may go on to a relatively uneventful recovery. This type may give an early positive blood culture without involvement of the larger sinuses, because, when the sum of the venules involved is considered, it may well equal the capacity of the lateral sinus, and it is the amount of infection in proportion to the antibodies in the blood which determines positive blood cultures, if the technic be otherwise the same.

It sometimes seems as though we are inclined to visualize sepsis as the multiplication of bacteria in the blood, whereas we should really think of sepsis as the constant or intermittent discharge of bacteria or their toxins into the blood stream from foci of infection, either in venules of the soft parts or in those of the bone.

If we operate upon the coalescing mastoid abscess before it has walled off, we open up new pathways of infection, and we run grave danger that a complete lack of regeneration may follow such too early removal of partly dead bone, and may expose the patient to a secondary operation and to a chronic postauricular fistula; the chance of leaving partly infected cells is greatly increased and, therefore, convalescence is greatly prolonged.

If, on the other hand, we wait for from 10 days to 3 weeks, the anatomic boundaries of the mastoiditis are easily ascertained, the operation is easier, the shock is less, no new avenues of infection are opened, healthy granulations soon spring up, and the patient makes a rapid and complete recovery with a dry ear and perfect hearing, in from 3 to 5 weeks. If, in the third instance, we wait more than 3 weeks, in a case which is not doing well, there is apt to be some necrosis of the inner table over the sinus, followed by a perisinus abscess, destruction of the intima, first a mural and then an obturating clot, breaking down of the center of that clot, and an eventual typical sinus thrombosis. This same pathologic and chronologic process holds good for septic meningitis, brain abscess, extradural abscess, or purulent labyrinthitis.

To summarize, the causes of local aural sepsis are:

(1) Acute purulent otitis media before incision of the drum, or from insufficient drainage.

(2) Coalescing mastoiditis after 10 days to 3 weeks of otalgia or otorrhea.

(3) Hemorrhagic mastoiditis from the very onset.

After operation we must look for:

(1) Mixed infection, particularly the green pus of bacillus pyocyaneus which is the most common local factor in a fairly septic postoperative course.

(2) Erysipelas.

(3) Incomplete operation with diseased

cells remaining most often in the groove below and behind the sinus, in the angle of the superior petrosal, and immediately behind the antrum in the solid angle or overlying the iter in the zygomatic cells.

There are at least 40 deep veins of fair size about the labyrinth and the deeper labyrinthine cells toward and including the apex of the petrous bone. In any or all of these there may develop an osteothrombophlebitic process during the postoperative course of a hemorrhagic mastoiditis. Such an infected focus may give either local or constitutional symptoms. It must be combated by secondary operation and more radical exenteration, if there be any doubt about completeness of the first operation; and by transfusions, if necessary; every time the hemoglobin falls below 55%, a repeated transfusion, if possible from a donor who has been immunized against the autogenous organism obtained at operation.

I will start my discussion of systemic sepsis by considering the chronic running ear. Statistics are notoriously unreliable, and this is particularly true for us in the use of European figures relative to acute and chronic otitis. We see and operate upon so many more acute mastoids, and so relatively few chronic ones, that conditions are entirely different here. The one outstanding fact is that it is the acute exacerbation of a chronic mastoiditis and the late acute phase of the acute mastoiditis that leads to the majority of systemic septic complications.

A chronic otitis which has been discharging so little that the patient thinks it nothing but wax, or which has had acute exacerbations of discharge and pain with each cold, being dry and painless in the interval, suddenly develops more discharge, accompanied by a swollen, tender canal and half headache. It is classified as an "external", but lasts longer than it should and the patient suffers more and sleeps less than he should. Suddenly, the doctor, realizing he is dealing with more than an "external", operates, finds cholesteatoma, a forward-lying sinus with a perisinus abscess or even gangrene of the sinus walls. The patient is better for a few days and then has repeated chills, fever, sweats, and at secondary exploration a large broken down clot is found within the sinus.

Sometimes a coalescing mastoid, rather benign in its symptomatology, has been left to nature's tender mercies for longer than 3 weeks, even for from 5 weeks to 3 months, having intervals of discharge, now lessened now more profuse, with spells of headache and sleeplessness, and a general toxic look. Finally, even the patient realizes he is going down hill and consents to an operation. A perisinus abscess is found, the patient is somewhat better for the treatment but soon settles down to a typical septic course with repeated rigors or even frank chills, dry skin, toxic rashes, sore joints, and intestinal symptoms. The sinus is then opened, a clot is found and removed, and all goes well.

A hemorrhagic mastoiditis continues to be septic after a complete exenteration, the hemoglobin and red blood cells continue to decrease, the head symptoms persist; the sinus is exposed, the external wall is absolutely normal but on opening it a clot and free pus is found.

A child has an earache and probably some discharge, the temperature fluctuates widely, fever beginning 48 hr. or sooner after onset of the ear symptoms, and perhaps there is even a positive blood culture showing hemolytic streptococci; the mastoid is opened and found practically, if not entirely, normal and the operator decides he has erred and goes no further; however, the temperature persists, and taking the bit in his teeth, the surgeon explores the bulb from the intracranial aspect and finds pus and clot. He should have found it at the first operation, but we rarely have the courage to go ahead even when we realize and appreciate that ear symptoms with sepsis and a normal looking mastoid in childhood almost always mean primary jugular bulb thrombosis. A positive blood culture should, of course, be absolutely conclusive.

What can we do to promote the practice of otology comfortably, honestly, with equanimity, without mental turmoil, so as to give our patients the best that is in us and at the same time not expose them to needless surgery, and at the end congratulate ourselves

on a cure when perhaps the patient recovered in spite of us rather than because of us. We must early better classify our cases. (1) The violent hemorrhagic form with no time to waste. (2) The slow coalescing type, which does best if operated upon from 10 days to 3 weeks after onset of the otalgia and is prone to complications only after about 3 weeks. (3) The acute exacerbations of chronic otorrhea which, in America, are least frequent but most dangerous. To do this we must get a careful chronologic history; we must be sure we really have the date of onset and not the date of beginning of breaking down of the bone. In other words, the very first earache is our starting point, not the date of the change from an empyema of the mastoid cells to an osteomyelitis; this latter is the date the patient gives, because it is then that the temperature rise and the half headache started.

We must attempt to determine the organism causing the otorrhea, or at least the mastoiditis at the time of operation. This requires coöperation of the bacteriologist, and no one realizes more fully than I just what that means. I have been trying to get 100 absolutely consecutive reports on hemolytic or nonhemolytic organisms and there are just enough lost cultures or inadequate reports to repeatedly break the series. I know of nothing so gratifying as the satisfaction one gets from knowing the organism and the nature of the disease process, whether a coalescing or a hemorrhagic mastoiditis, when complications arise, whether severe or merely puzzling and worrisome.

We must realize that children present a problem far different from that of adults. If an adult has continued fever after a complete mastoid operation, he has either a chest condition, which will show on x-ray examination; a local wound condition, such as Bacillus pyocyaneous infection or erysipelas, or an intracranial sepsis, and in this term I include sinus thrombosis, brain abscess, and meningitis.

If a child under 5 or 6 years of age has continued fever after a really diseased mastoid has been exenterated, he is most apt to have some vague bronchitis, pyelitis, nephritis, glands about the neck or in the mediastinum, a sore throat, or the onset of a contagious disease of childhood. The most he probably will have locally is a continuation of the infection in the bone marrow of his diploetic mastoid. Clinical experience alone helps in judging the child's resistance and susceptibility to the virulence of the microörganism. I am very sure that in childhood, largely perhaps because of extra development of the lymphatic system, the lymph channels and lymph glands hold infection in abeyance and help to localize the infection without the presence of a phlebitis. Too narrow a view of the clinical significance of temperature in a child who has no headache, and who eats and sleeps well, if often taken by the more radical surgeons; thus bringing too much pressure to bear on the sinus thrombosis or phlebitis theory and overlooking the many respiratory, urinary, and glandular conditions which are undiagnosable by even the most skilled pediatrician or internist. All my regrets on the radical side are in connection with cases where the internist said "not pneumonia", and a central or apex pneumonia manifested itself shortly after operation. All my victories on the conservative side have been when x-rays showed chest conditions while I felt that the minor nature and a clear-cut evaluation of the ear lesion did not account for the severity of the symptoms.

If then, an ear case, either pre-operative or postoperative, is not doing well, we should at once do a complete blood investigation, including hemoglobin test, white cell count and differential; blood culture repeated frequently; culture of the middle ear and mastoid secretions at operation or from the mastoid wound, if not already done; an x-ray examination of the mastoid and of the chest; a careful daily urinary analysis; make a careful, dated history with physical findings including those of neurologic examination; complete daily visual fields. If all this evidence be inconclusive, and if the information we may possibly obtain from a lumbar puncture outweighs the possible harm we may cause by doing it in the presence of a positive blood stream infection, we are warranted in doing a lumbar puncture, or even a cisterna

puncture, so as to anticipate the spread of septic meningitis if only by a few hours.

From the operative view point we must, as stated before, revise the operative field particularly if the first operation was done by an otologist with whose technic we are unfamiliar. This must be done along anatomic lines not, as was so long taught, along pathologic lines of following the disease, for as the mastoid is formed from the squamous, the annulus tympanicus, and the petrous portions of the temporal bone, there may be, and usually are, dense healthy partitions between the various planes with extensive disease beyond these divisions. When this has been done, the real diagnostic difficulties occur almost entirely in children, and then it is very easy to make a ¾ inch posterior incision, as recommended by Whiting, at the lower third of the wound. This should not go back further lest it cut the mastoid emissary vein, and the extra room is not needed. The scaleni and complexus are freed from the posterior border of the mastoid and from the base of the skull, the posterior belly of the digastric is freed from its groove, and the entire base of the skull for 1½ in. is removed, starting from above and behind and working downward and forward to the turn of the trap of the jugular on its intracranial aspect. This, as has for so long a time been demonstrated and taught by Dr. Eagleton, is far easier than the approach along the extracranial surface of the base and leaves the facial nerve severely alone and safe. Now, after blocking the sinus above with an iodoform pack, a Cushing knife, which is merely a straight Graefe cystotome, can be used to cut into the top of the bulb with ease and deliberation so that should pus or clot be present it can be demonstrated and sucked out. With a headlight, suction, and a careful technic, bleeding from below can be easily determined. Should this procedure be negative, the sinus is blocked below by another iodoform pack and a similar incision is made at the knee of the sigmoid. Again with a careful technic, pus or clot, even mural clot, may be demonstrated, and by alternating pressure of the gauze packs, free bleeding both from above and below can be demonstrated. After negative explorations, the packs are removed, leaving one on the incision at the knee; but the blood stream should not be stopped by pressure if the findings are negative.

To tie or not to tie the jugular is the question in positive cases. If free bleeding is obtained from below, there seems to be no reason for tying, but if in doubt, tie by all means if condition of the patient permits the extra 20 minutes needed for the neck work. In the absence of free bleeding from below, the skin fistula procedure of Alexander, whereby the tied upper end of the jugular is fastened to the skin of the neck to be opened in 24 or 48 hours for drainage of the bulb, should always be carried out. Curiously enough, temperature and other symptoms often promptly subside after this operation even in cases with negative findings. Whether this is due to removal of additional local areas of infection during the extensive surgery, as I think, or due to relief of vascular tension by uncovering the lateral sinus and incising it, curing a miscroscopic periphlebitis or phlebitis, as others think, I am unable to say. But, the exploration allows us to know at least that we have ruled out the dangerous possibilities, and we can then treat the condition symptomatically, without feeling that a do-nothing attitude is exposing the patient to danger.

As every rose has its thorns, so in this dream of a Utopia of worryless mastoid cases, we must allow for the few exceptions that occur because of transmutation of types, or because of mistakes of observation or technic in surgery. We must remember that every otitis that has an accompanying headache or rigors or intestinal toxic symptoms, or toxic rashes and joints, must be explored, and that this exploration must be so extensive and so carefully done with headlight, suction, team-work and good instruments, that when we finish we may feel that the patient has had the best that is in us, and that beyond reasonable doubt he has no complications for which surgery—and by surgery I mean the modern otologic surgery of Eagleton and his school—furnishes hope of a cure.

DISCUSSION

Dr. Wells P. Eagleton (Newark): I think that the Section is under great obligation to Dr. Barkhorn for calling attention to the different types

of mastoids. He brought that suggestion to the staff of the City Hospital and at first I was inclined to laugh at it, but gradually I think we have one and all adopted the principle that if you can diagnose the particular type—and I must say for myself that I haven't as yet acquired sufficient knowledge always to do that—the results are very much better if you wait in the cases in which you can only wait with safety. Only recently we had a nurse who had a pneumococcic infection, and I told them that in my opinion the mastoid should be opened. Dr. Barkhorn said that all of the cases that had pneumococcic infection and had been opened, had not done well. She then developed an outspoken pneumonia and I don't know what has happened since. Is she getting well?

Dr. Barkhorn: She is getting well, but she will need a mastoid operation.

Dr. Eagleton: How important this matter concerning the different types of microörganism and how confusing this matter of just making a culture and throwing it in the basket without using it, is shown by a recent discussion in the City of New York, at which one of the most eminent men in otology made the statement that he had given up all examinations for the kind of a microorganism and went entirely by the clinical manifestations; that they had never helped him at all, and I think that is about where we had come. We paid very little attention to the bacterial findings. But Dr. Kopetzky came along and put it on a somewhat definite basis, as far as the microscopic pathology was concerned, and now Dr. Barkhorn hopes to get 100 cases. Knowing what has happened, and with this report which he has made today, and the supplimentary report, there will be something concrete and definite that we can go by and have a definite policy of what to do.

I am sure that the Section on Otology of the New Jersey Medical Society is under great obligation to Dr. Barkhorn for this very valuable communication, and I want to say this for a group at the City Hospital: That the bringing of these different types into otology has had a very revolutionary effect on us all, I am sure. I thank Dr. Barkhorn for his paper.

Dr. E. Blair Sutphen (Morristown): I agree with practically everything you said, Dr. Barkhorn. There were 2 or 3 points that were especially interesting to me. One was about the hemorrhagic type. Years ago there was a certain type of mastoid that was called by Dr. Whiting "in the stage of red hepatization". He spoke of all the mastoids which were hemorrhagic as "in this stage of red hepatization". I feel now that those were hemolytic cases and instead of in a stage of any particular case they were all a type of infection.

It is very unsafe to rely very much upon reports of bacteriologic examination of the discharge from the ear. Even where this is very carefully and conscientiously done, it has been my misfortune to find frequently a different report from the ear discharge and from the mastoid itself. I do not believe one has to operate very much before the first week in any case. I do believe that even the hemorrhagic cases do better if you can let them go at least a week. I think you said that. I know that at Camp Taylor I did 50 mastoids in 2 consecutive weeks and every one of those cases was a streptococcus hemolyticus; every one of them was more hemorrhagic than any case I have ever seen in civil practice. A great many of them were operated on in 36 hr. from the onset of the ear symptoms. I think now that I operated on some of those cases too early, but they were obviously a more severe type of infection. I never have had a case in civil practice that I do not believe could have gone 1 week before operation and still be cured.

You spoke about finding some mastoids, when you got into them, apparently normal or at least not badly affected.

Dr. Barkhorn: In children.

Dr. Sutphen: I believe that any mastoid that is opened for any reason in any case should be completely extirpated. I do not approve of ever doing a partial mastoidectomy.

I am glad that you emphasized the dangers of the chronic cases. The reason for my paper was this: That I saw in 1 day 7 patients, suffering from chronic purulent otitis media; that this brought to me forcibly the great number of such cases, their discomfort and their dangers; and that I realized that they could all have been prevented.

Dr. H. Alton Schachter (Newark): I am very much interested in that needle which Dr. Barkhorn offers as the Levy needle make by Becton and Dickinson Co. It reminds me more of a medical crowbar than a lumbar puncture needle suitable for use on the infant.

I would like to preface my remarks by an explanation. I regard Dr. Julius P. Levy as a personal friend. He takes care of my own babies when they are ill and is perhaps the ablest pediatrist in the State of New Jersey. Of course we all know that the Becton and Dickinson Company is in the manufacture of surgical instruments, but I regard that little instrument which was passed around among us a moment ago as a most vicious thing to use on children. I have had the opportunity of doing an unusually large number of lumbar punctures, both in the Government service and since, and during my internship days, and included among those were a large group of children who had to be punctured. I know how the specialist feels with regard to the lumbar puncture if he doesn't do it often, particularly if he happens to be practicing in a different specialty. I recall a very able pediatrician, who was in charge of the department at the hospital in which I was an intern, made 7 or 8 attempts at a lumbar puncture on an infant without success. Then a short time afterward, the house surgeon, without any difficulty, did a successful puncture.

Green devised a very flexible needle with a round point, which is also made by Becton and Dickinson, and which is so flexible that it can be wrapped about a pencil without breaking it. It is made in about 20-22 gauge. The Levy needle is about 16 gauge and has a beveled point. Green also in the Journal of the American Medical Association a year or two ago pointed out conclusively by a series of simple observations and experiments, the advantages of using a round-pointed lumbar puncture needle, and unless one wishes to do a continual spinal drainage on a

child, I certainly should strongly advise against the use of the Levy lumbar puncture needle, because that is just what it will do. A needle not larger than 20 gauge should be employed in doing a lumbar puncture on children, and there is no special advantage in having the shoulder or handle of the needle much different in shape or size from that of the ordinary Luer needle. A shorter needle than the adult size, either 2 inches or 1¾ inches in length, is preferable for use in young infants.

Dr. Henry C. Barkhorn (closing discussion): The needle has been very useful. That is all that need be said for it.

I was simply attempting to reiterate that unless there be a hemorrhagic mastoid, the chances are a thousand to one against an intracranial complication in less than 3 weeks, if you truly have the time of the beginning of your story. If a patient had a rather mild attack and the doctor opened the drum and nothing came of it, and in the course of 3 weeks he came back to you with a frank ear, it is part of the same story and you must revise your history and go back to the original trouble. Dr. Sutphen and I absolutely agree on 3 weeks as the upper limit; 7 to 10 days is ideal; sometime in the second week is the time of election.

I want to draw a sharp distinction between children with their diploëtic mastoids as compared to adults with either their ivorylike or their cellular mastoids. There is a vast pathologic difference; there is a vast diagnostic difference; and the point I was attempting to bring out was that in primary jugular bulb thrombosis one has no mastoid involvement. It goes directly through a vein of the middle ear, or it is potentially possible for it to go through a dehiscence and you have the septic temperature, the running ear, you open the mastoid again and expose the sinus, and find that negative, and only at your third operation do you tumble to the bulb, whereas you should have tumbled to it at the first operation, realizing that this case, granting it is an ear case at all, must be a primary jugular bulb thrombosis.

I am glad that my paper and Dr. Sutphen's did coalesce, so to speak.

Dr. James A. Fisher (Asbury Park): I am very glad that this point has been brought out, for the simple reason that last fall there was a discussion on this very point at Detroit at the meeting of the American Academy of Ophthalmology and Otolaryngology—not in the meeting but in the valuable discussions that occur around in the fellows' rooms after the sessions, and 2 men from Dr. Joe Beck's clinic in Chicago were arguing in favor of a 6 weeks' postponement of operation in anything but the hemorrhagic type of mastoid, and I didn't feel that "little me" could put up much of an argument but I know that we have all seen cases that have gone a much shorter time than that with the lateral sinus plate involved, granulations over the lateral sinus, and what-not there. I also made the remark at the time that if the parents of the youngsters in our neighborhood knew that we were even thinking of a mastoid, they wanted immediate operation; they wanted no postponement at all, because if we postponed it the other fellow was going to operate.

TRIALS AND TRIBULATIONS OF THE NEW-BORN

Joseph H. Marcus, M.D.,
Atlantic City, N. J.

Attending Pediatrist to the Atlantic City Hospital; Betty Bacharach Home; Jewish Seaside Home; Bamberger Home; Ocean City Home for Babies; Pine Rest Sanitarium; Chief of Baby Welfare Clinic, Atlantic City.

(Read at the Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 8, 1928)

The span of life for each human individual extends from conception to death, but the most momentous changes in function and environment during this period of existence occur in the brief period of childbirth. Most of us know of certain individuals, either baby or mother, so damaged during the act of birth that they always remain among those seriously incapacitated persons who constitute a large and permanent burden upon the community. Evidently it is insufficiently realized what proportion of this damage, that is occuring daily might be prevented if greater advantage was taken of methods and knowledge at our disposal.

Consider the midwife who still persists today as an evolutionary element in our midst, referred to by Lee and likened to the vermiform appendix, chiefly of concern because of the great amount of harm she originates, her essential function having long since been destroyed or lost. Even childbed fever is responsible today for many deaths, despite the fact that for a period of 50 years positive knowledge has existed for its avoidance. On the other hand, I cannot help expressing my conviction that diseases of the new-born are not being sufficiently studied in this country and that this highly important and vital period of life has been relegated somewhat to the background in teaching curricula. In our medical schools, I have always been of the opinion that every maternity department should have on its staff at least 1 medical man who is interested in diseases of the new-born and whose knowledge could be placed at the disposal of the obstetrician. We feel sure that a vast amount of highly interesting

material is being lost sight of for lack of special study and would therefore recommend that every maternity department should institute a special clinic for the study of diseases of the new-born and provide a course of lectures on the subject to be given by specialists of this department of clinical research. Infant welfare clinics embody a highly important aspect in certain respects, but clinics for new-born infants must be provided sooner or later in every maternity hospital where the future practitioner can be trained in the diagnosis and treatment of diseases of the new-born. After all, infant life is of the greatest importance to a nation and if we are to maintain a foremost place we must do everything within our power to preserve the lives of the new-born committed to our charge, and it is only by devoting time and concentration to this subject that we can hope to decrease the infantile death rate.

By the term new-born is usually meant the infant in the first month of its separate existence. Vital interest in mortality of the new-born is certainly not misplaced and in spite of the most favorable results which have been obtained in lowering the death rate of infants, the mortality in the first month of life has remained practically stationary.

Mortality statistics of the new-born are derived from 2 general sources, each of which has its inherent value. For a general review of the subject the health statistics of cities and states may be used, but for a more accurate estimation of the causes of death it is better to examine more carefully the statistics derived from our institutions.

Koplik went into the subject from the standpoint of health statistics of cities and states and although this research was done some 10 years ago his findings are very interesting, and comparing his data with present statistics there is very little difference in the conclusive facts. He found that 1/3 of the total number of deaths occurred during the first 4 weeks of life, the principal causes of death being as follows: Congenitally weak or premature infants constituted fully ½ of the total mortality for this age; the next largest number occurred from injuries at the time of birth, sepsis, and cerebral hemorrhage; syphilis accounted for only a small proportion; and, malformation, including those of the heart, accounted for another group. He concluded by saying: "Fully 60% died as a result of neglect, ignorance and surroundings of poverty." While we cannot lay too much stress on the causes of death derived from such statistics, since we know there is a notable source of error if we rely on death certificates for diagnosis and especially deaths from diseases so little studied as are diseases of the new-born, yet for the purpose of the study of general mortality such statistics are illuminating. For the purpose of examining more carefully into the causes of death, of much greater value are the statistics derived from some large institution where careful examinations of patients are made and circumspect records kept and where we may assume that the medical attention which these cases receive comprise the highest order and the diagnosis, therefore, is as correct as is humanly possible. In analyzing a total of 10,000 births at the Sloane Hospital for Women, in New York, 253 were abortions, 429 still-births, and 9318 living. The total number of deaths in the first 14 days was 391, or 4.2% of the infants born alive, more than 50% of deaths being attributed to congenital weakness. Other causes of death, listed in the order of their importance as to numbers, were as follows: Accidents of labor, pneumonia, atelectasis, congenital syphilis, malformation, hemorrhage, asphyxia, accidental, and undetermined, the last being 8 in number. As is well known, the death rate at this age from congenital debility constitutes by no means all the dangers from this condition, since a larger proportion of these children than of normal full term babies die in later childhood.

Defective vitality or congenital weakness might be designated for those conditions in which the child reacts to physiologic stimulations with the symptoms of disease; by means of such stimulations as are easily overcome by the healthy organism. Its development is hindered and it is injured. This defective resistance and tolerance may be overcome in the course of development. It may, however, reach such a degree that the organs are not

able to meet the functional demands made on them, and therefore life is impossible. In these cases there are no primary anatomic changes in the organs. True vital debility is solely a weakness of function.

Pfaundler has distinguished 6 types: (1) Debility on account of premature birth with an unhealthy mother. (2) Debility of mature infants of an unhealthy mother. (3) Debility on account of premature birth from a healthy mother. (4) Debility from other causes with healthy mother (twins, etc.) (5) Prematurity without debility. (6) Birth from unhealthy mother without debility.

The most important symptom resulting from defective development of the central nervous system is the imperfect functioning of the respiratory center. While, in general, the heart of the congenitally weak infant functions well and primarily does not involve any danger to life, disorders of respiration are the most frequent causes of death or at least of dangerous symptoms. The gaseous exchanges are very insufficient and excess of carbonic acid in the blood results, which interferes with stimulation of the respiratory center; so producing cyanosis.

Intermittent cyanosis in infants is more frequently due to other causes than to cardiac leisons. It is almost always present in the pneumonia of the new-born and in intracranial hemorrhage, but many diagnoses of congenital heart malformations are made on these symptoms alone.

Dr. Boorstein has discussed intracranial injuries, obstetric brachial paralysis, fractures and torticollis. His observations have traced permanent injuries to parturitional trauma; all of these injuries can be diagnosed at birth if careful examination is made. The spastic cases would receive immediate treatment even when we are in doubt whether the mental condition of the child will ever be normal, as one cannot tell how much mental recovery will be obtained. Newman and Levy estimate that 75% of birth injuries can be avoided and that birth injuries are still responsible for an appalling number of deaths. Wiechers maintains that the majority of infants who die in the first few days of life have grave injuries of the brain. The favorite clinical diagnoses in these cases were prematurity or congenital debility. The same injury causes death in the second 2 weeks of life, the favorite diagnosis then being purulent bronchitis, pneumonia or malnutrition. Mellanby regards the defects of diet of women during pregnancy and lactation as responsible for some of the illness and mortality of young infants. Abel's statistics show a lower weight of new-born babies of undernourished mothers, accompanied by a slightly longer pregnancy lasting a few additional days.

The matter of influencing the weight and size of the new-born child by means of diet seems to be of continual interest. For many years the notion has been prevalent that if women eat gluttonously during pregnancy the children will be over-developed and delivery will be difficult. As laziness in the latter weeks is likely to postpone the birth, overgrowth of the child from prolonged pregnancy would add to the dystocia. Experience seems to point to the truth of this attitude while, on the other hand, experience and scientific research seem to prove conclusively that it is impossible to influence the size and weight of the new-born by any special diet during pregnancy excepting by actual starvation. In this event abortion and premature labor are more common.

Persistent and intermittent fever might at times be due to a more remote cause, as exemplified in the cryptic temperature of an infant aged 3 weeks where the fluctuations in temperatures persisted for 2 months, there being no indications to determine the source of infection; necropsy showed softening of the cerebral cortex in both hemispheres. The assumption is that certain fevers of unknown origin in the new-born may be traced to clinically undetected lesions of the central nervous system caused by some birth injury or some unrecognized infection.

In order to obtain best results with prenatal work, Ford urges the institution of modified methods of procedure according to the nationality and color of the mother for the following reasons: The high incidence of contracted pelvis, slight albuminuria and high blood pressure among native white mothers; a very high incidence of syphilis and contracted

pelvis among negro mothers; a high incidence of contracted pelvis, albuminuria and high blood pressure among Irish mothers; low incidence of contracted pelvis, albuminuria, and high blood pressure among Italians, and a low incidence of the latter symptoms among Russians.

Foote's conclusions urge for a revision of present methods of classifying the causes of deaths from diseases peculiar to early life, as this would give more accurate information than is now obtainable. Better obstetric teaching, which necessitates larger teaching clinics, is necessary if birth injuries are to be minimized. Complete necropsy should be performed on every infant dying within the first month of life. The frequent occurrence of intracranial hemorrhage as shown in necropsy reports compared with its rarity in other statistical tables suggests that it is frequently undiagnosed. Prompt diagnosis and the use of hemostatic therapy would save many lives.

Litzenberg urges that the newly born baby be turned over to the pediatrist as soon as the cord is tied. He summarizes his 10 years experience with outstanding facts, observing better routine care, more careful and complete examinations, greater attention to regulation of habits, markedly better results with the premature, scientific feeding, regulation of heat loss, earlier discovery of congenital defects, untoward symptoms detected sooner, the institution of aseptic care and lastly the volume of research which cannot help but result in reducing infant mortality.

De Buys urges that daily observations of the newly born should be made, beginning from the time the cord is tied. The nearer birth this supervision is begun, the better for the infant. The temperature and the weight curve should be observed closely, as they frequently give the first indication of impending trouble. It should be remembered that the greater the loss of weight the less the resistance of the individual; and if to this diminished resistance is added an infection, a digestive disturbance or an organic disease (for example a hypertrophic pyloric stenosis), the infant's chances are materially diminished. Excessive losses in weight should, therefore, be avoided as much as possible. In order to prevent an unnecessary loss in weight, the feeding of the infant must be conducted efficiently. With a daily observation of the temperature, the weight curve, supervision of the breasts, daily inspection of the infant's stools and a thorough knowledge of the diseases of the newly born, it is hardly likely that any condition will be overlooked and the newly born will receive his just deserts.

How are we to meet these important and variegated problems? How can we best meet the situation? As outlined by Grulee, his method is to determine to whom should the newly born infants in our large clinics be assigned in order that the best results may be obtained. Evidently they should be assigned to those to whom the solution of these problems is of greatest interest and it therefore seems best that these children should be relegated to the care of the pediatrician. There is no question but that in certain conditions he will seek help from men interested in other branches of medicine but the problem on the whole must be given to him for solution. If we would meet conditions in a large way we must have ample facilities for the prenatal care and the expectant mother must be directed away from the midwife to the competent hospital obstetrician. She must be shown that, for herself and her infant, the best possible results are to be obtained in the hospital and the physician must be taught his duty not only to the mother but to the child. More thorough and intensive teaching in our medical schools for proper regard for the newly born infant is highly important. Nurses must be instructed as to manifestation of diseases in the new-born, so that danger signals may be interpreted and, lastly, physicians and nurses should be warned against misdirected therapeutic gestures. Williams feels that our chief hope lies in better obstetrics, and reduction of syphilis and toxemia.

DISCUSSION

Dr. Harry B. Silver (Newark): I'd like to say a word on the question of neonatal mortality. It is a problem that everybody doing public health work in child hygiene in the different cities or states finds of great interest. Only recently there was in Newark a neonatal conference at which Dr. John Sharp Williams was one of the speakers. Our infant mortality rate in this state,

particularly in the City of Newark in the last 10 years, has shown a tremendous drop; something of which we are very proud. If you will recall yesterday morning's meeting, it was shown here that the infant mortality rate for Newark exhibited an almost complete absence of the diarrheal peak that formerly existed. In spite of this our neonatal mortality rate, of infants that die within the first month, and our mortality rate of those that die within the first 4 days has remained practically constant.

The great group of cases the doctor spoke of as being included in congenital debility apparently fit to a very astonishing number in the group that will probably go under cerebral hemorrhage. I think it is now pretty well admitted that in immature infants the ordinary birth forces are sufficient in a great majority of the cases to produce trauma and cerebral hemorrhage without any undue interference with labor. These infants all die very early and are classified as cases of general debility.

Dr. Williams, in a survey of 500 cases of normal full-term deliveries at the City Hospital in New York, doing routine spinal taps, found 17% showed evidence of intracranial bleeding. I think that was to most of us an astonishing statement. Most of them got perfectly well, but undoubtedly where normal, full-term babies show this high ratio, these premature children would show a very much higher degree.

Dr. Stanley Nichols (Long Branch): I was looking around for Dr. Levy when Dr. Marcus called the midwife the vermiform appendix because I attended the same conference he referred to. I have forgotten the figures, but I think it showed that private practice gave 15, hospitals 10, but the midwives in that section only 5% mortality in this given group. However, that might be because the midwives sent the bad ones to the hospitals.

Dr. Marcus led up very nicely to this question. First he talked about clinics we might have for new-borns, and finally came out plump and plain and said we pediatricians should have care of the new-borns. The last time I talked to Dr. Gerstenberger they had built a new babies' hospital in Cleveland. I looked at it alongside another twelve-story new maternity hospital. I said, "With your splendid group of research men, I suppose the very moment they deliver a baby they give it to you". He blushed and said, "They do not".

We pediatricians would certainly like to try to do justice to the new-born. If we asked all the pediatricians in the room, or in the state for that matter, to rise up, who have full charge of the new-born in their respective hospitals from the moment they are delivered. I do not think they would crowd this room. They tell us they don't want them, and still they don't give them to us. So far, it seems the only thing we can do is discuss this terrific mortality of the new-born, and utter prayers to Heaven, until they shall finally come around and say, "We don't want them, you can have them".

There is no question, without any indictment of the obstetrician in any way, that he does not tend generally to carefully inspect his new-born. I know of cases where the nurse does the inspection. The doctor says, "Is the baby all right" The nurse says that it is and that is the inspection that is given. Some of us who did general practice many years ago are guilty of the same thing so we can't criticize that, but we can all make a united appeal and try to present these facts so we may salvage some of the new-born.

Chairman Hummel: Is there any further discussion?

Dr. F. C. Johnson (New Brunswick): I'd like to ask Dr. Marcus what he does with cases that seem to have intracranial hemorrhage after birth? There is a great deal of discussion on what should be done.

Chairman Hummel: My experience has been with the obstetricians, that they must be in cahoots with the condensed milk people, as nearly every baby handed to me by the obstetrician has been put on condensed milk.

Dr. Marcus: I was very sorry I didn't hear any discussion on the after-effects of intracranial bleeding because a lot of you gentlemen see these cases immediately after birth, and follow them up until they reach childhood and adult life. What becomes of them? Are they the spastic type that are mentally deficient, or a community burden; or do some of them get well and become normal or nearly normal types of individuals. We have 2 at the present time in our pediatric ward. If you will visit us tomorrow morning, we will show them to you, one 5 and one 7 years old. They are sister and brother and show very vividly the effects of intracranial bleeding of the new-born. These 2 children would be very much better out of the way, instead of being alive.

I was glad to hear Dr. Silver's statistics. Fourteen years ago the number of neonatal deaths was about the same as Dr. Silver's. It seems that very little has been done regarding the lowering of the neonatal death rates.

Dr. Nichols spoke about the trouble he has with drawing a sharp line of demarcation between the newly born and what ought to come under the guidance of the pediatrist. We experience the same difficulty. We all experience the same amount of contention, but we are coming more to that particular point in which I feel that every new-born will be turned over to the pediatrist just as soon as the cord is tied. The only way we can hope to attain such an objective is by persistent and consistent efforts, because I really am of the opinion that we can lower the morbidity and perhaps the mortality. It is a rather broad statement to make here, but I feel we can lower the mortality to a certain point anyway if these infants are turned over to us immediately after the cord is tied. Only recently a very competent man delivered a baby and the baby was brought to my office 3 weeks afterwards. It was normal, well developed, well nourished. The mother said she heard a rather peculiar sound in the chest of the baby. On examination, I found a loud systolic murmur which could be heard all over the anterior surface of the chest. I am certain this was a congenital murmur because the baby had been perfectly well and had no infection; in all probability, the attending physican gave little attention to the new-born, and more attention to the mother.

Another condition I always bear in mind as to careful examination after birth is imperforate anus. This last type is the one that is often overlooked. We, in the United States are accustomed to divide this type of malformation into 3 classes: (1) Complete closure of the anus with an entirely normal intestine above; (2) anus closed and in addition the rectum above it exhibiting atresia

for a varied extent; (3) anus and part of the rectum immediately above normal but separated by a membrane from the patulous rectum farther up; the layer between the external integument and the blind rectum may attain considerable thickness.

Answering Dr. Johnson, as previously mentioned, I am sorry we didn't hear from those physicians who have been able to follow up these cases for a number of years, who could tell us exactly what happens to these infants born with the stigma of intracranial bleeding. Our procedure is, immediately upon the recognition of 3 signs—increasing stupor, twitchings of the extremities and decreased attentiveness to the nursing, to do a spinal puncture. We have found that if the bleeding is above the tentorium, we may not find any blood in the spinal canal; if it is infratentorially located, we may find blood. My own personal thought is that these infants ought to receive all the attention we possibly can give them because we do not know the extent of the bleeding that has taken place and we are unable to definitely state how much of their mentality is or will be affected.

Dr. Hummel's experience with condensed milk is the same as we all encounter.

DIATHERMY; ITS USE IN GONOCOCCAL INFECTIONS OF THE FEMALE

Winfield Scott Pugh, B.S., M.D.,
New York City

Introductory

If we were asked what disease causes the most widespread suffering among women, the reply would unhesitatingly be gonorrhea. When one sees that careful observers find 800 out of every 1000 men have or have had this disease, think how widespread must be its distribution. Carefully kept records over a period of 27 years (during which time we have seen many thousands of cases) convinces us that really few cases are cured; because of their reluctance to continue treatment. It is safe to say those remaining under treatment until clear of disease do not exceed 10%. All of these men are human and many will sooner or later enter the holy sea of matrimony, Some, however, will become associated with women in a less conventional manner. Wholesale infection is thus constantly taking place.

The Infection

So much has been written on the subject of endocervicitis that many physicians think only of the cervix as the site of infection by the gonococcus. The urethra is almost always overlooked. In at least 90% of the cases of gonorrhea in the female referred to us, no record appears of a urethral examination. This applies not only to the general practitioner, but to the urologist as well. Judd tells us it seems to him that the cystoscopist has considered the female urethra only as a canal through which an instrument could be passed to the bladder. This statement has been called overdrawn, but in our experience it is a correct observation of fact. The cervix is for obvious reasons thought of first, but the urethra should not be overlooked. We have discussed elsewhere the percentage of urethral involvement noted by eminent authorities. It is shown as very high. Our own observations convince us that this tube is almost always infected. We are so sure of this that it is our custom to treat the urethra whether we find definite evidence of infection or not. I am sure we err but seldom. In gonorrhea of women we have usually an infection of both the urinary and sexual tracts, and both avenues must be treated. It must be remembered that practically every tissue in the genito-urinary tract may be involved in this disease. The infection is also systemic, and evidence of arthritis and phlebitis of the femoral vein are not unusual.

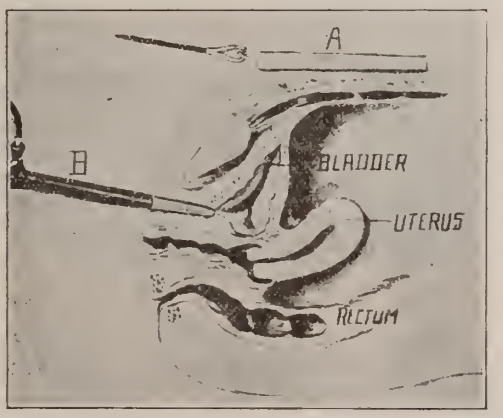
Common Fallacies

There are many erroneous conceptions regarding gonorrhea in women. One is that the disease arises spontaneously as the result of a lack of care. Another common idea is that the disease is incurable. The latter is widespread and persistent. Not only does the incurable idea prevail among the laity, but with many physicians as well. Only recently we have had 2 women patients who had been informed that a hysterectomy offered their only chance of cure. It is true that there are many cases extremely difficult to relieve, but with modern methods and willing patients the end-results are excellent. Patients often come to us with the statement that their normal discharge irritates them. There is no such thing as a normal discharge, but this idea often allows gonorrhea to become wide-

spread before treatment is instituted. When a woman develops a purulent discharge its nature should be ascertained at once. The idea of gonorrhea being no worse than a bad cold has fortunately never been applied to women. With these few necessary remarks we shall pass to the main topic—that of treatment.

Treatment

The treatment of gonorrhea in the female has passed through various stages—chemical, surgical, cautery, and diathermy. Undoubtedly chemical treatment cures many cases of gonorrhea. Amputation of the cervix has always impressed us as a rather drastic method, to be avoided even by the skilled surgeon. Both amputation of the cervix and application of the cautery certainly lead to the formation of scar tissue, which must be an obstacle



1. Application of Urethral Electrode (Cherry).

to future maternities. Fear of discovery is an important feature that must be carefully considered in the treatment of social disease. Everything possible must be done to protect the patient. The disadvantage of chemicals, such as acraflavine and mercurochrome, as well as of surgical procedures must therefore be apparent.

In diathermy we have a modality of applying high heat of a known degree. It will destroy the gonococcus in the tissues without injury to the patient. Diathermy is a bloodless procedure and produces no shock. In the last year or so adverse comment has arisen regarding its use, particularly on the part of gynecologists. On investigating these complaints we generally find that the equipment has been inadequate. This finding has also been noted by Walther and Peacock. It is of the utmost importance that we have a heavy-duty machine. Many small portables are on the market, which instruments are valuable for certain other procedures but not for gonococcal infections in women. It is essential that our machine have a useful voltage of not less than 10,000 and a frequency of over 1,000,000 a second.

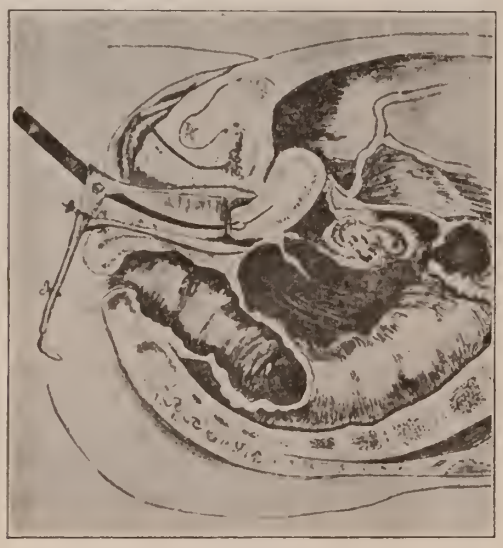
The application of diathermy in gonorrhea is based on the fact that the gonococcus is unfavorably influenced by fever. Weiss also found that he could inhibit the gonococcus by the artificial induction of fever. Corbus and O'Connor accepted the fact that the gonococcus persisted largely because it became bottled up in certain glandular structures and could not be reached. They also demonstrated that the gonococcus is instantly killed by the application of heat at 113° F. (45° C.) In addition it was seen that they could maintain a temperature of 116° or 117° F. (46° or 47° C.) within the cervix for 40 minutes without causing discomfort. There are 2 forms of diathermy, the medical or sedative with a maximum temperature of 50° C., and a surgical or destructive, which uses a much higher temperature. It is the sedative form which we employ in gonorrhea.

Technic

Our patient is made as comfortable as possible in the lithotomy position. The legs should be supported in a knee rest such as the Bierhoff crutch. It is important that this little detail of comfort be well observed, as the treatment is of long duration and the patient is quite apt to become a little tired. We now place our block tin electrode, 4 x 6 in. (with its under surface well soaped), over the suprapubic area. There are a number of patented devices on the market, but the above answers the purpose. The edges of this plate should be bound with adhesive to prevent burning, often complained of. One well known writer recommends the placing of a gauze pad wet with hypertonic saline beneath the electrode. We find the soap acts just as well. Various devices are in use for holding

down the abdominal electrode. Nothing is better, however, than a sand bag.

The Corbus thermophore is now introduced into the urethra when possible. Removal of the hard rubber jacket of this instrument is not necessary, nor is it wise. Carefully attach the connecting cords and turn on the current very slowly. In an interesting report on pelvic infections, by Cherry, a series of urethral cases is exhibited in which excellent results were attained. A current of 600 to 800 milliamperes was employed until the thermometer registered 43° to 47° C. for 20 to 30 minutes. Most of these patients were dispensary cases and not very



2. The Application of the Peacock Electrode to the Cervix (Walter T. Peacock).

sensitive. We find many in our practice who cannot stand that degree of heat. Some patients will not tolerate a urethral instrument at all. It is our custom to slowly add the heat until the patient has all that she can stand. This at times will not exceed 500 milliamperes. In the urethra treatments of 20 minutes will usually suffice to clear the channel of gonococci.

Glandular Complications

Where a persistent inflammatory condition exists in the glands of Skene, they must be coagulated. For this purpose they are best exposed by a handy little instrument known as the Moore skenoscope, or the electrode skenoscope of Walther. Where the ducts, as occasionally happens, open outside the urethra, they are visible without instruments. Walther states that skenitis has occurred in 90% of the women he has treated for neisserian infections. This is not surprising when we realize that almost every gonorrheal female has a urethritis and that these glands are always in the infected area. Walther's views closely coincide with our experience. Certainly infections persist longest in the anterior third of the urethra where these glands are located. The area surrounding the glands is treated with novocain and an electrocoagulation needle introduced into the gland. Considerable swelling and edema follow this treatment, so that we do not deem it advisable to repeat the procedure on the opposite gland until a week has elapsed. There is no doubt that coagulation is the ideal treatment of Skene gland infections. We frequently find a glandular mass on the roof of the urethra at the junction of the outer and middle thirds, in which infections may persist, not only the gonococcus but other pyogens. This area is readily seen with the urethroscope, using water dilatation.

Urethral Caruncle

Is this annoying little growth of gonococcal origin? Hewberger believes that it is. We are not quite sure, but it is commonly seen following gonorrhea in which Skene's ducts were definitely involved. It always occurs in the lower margin of the urethra about where these glands emerge. The ideal treatment of this growth is by electrocoagulation. When attempts are made to remove it surgically the hemorrhage is sometimes quite alarming.

Vesical neck polypoid masses. Along toward what is apparently at the end of a gonorrheal infection our patient develops attacks of vesical tenesmus of varying degrees with a clear urine. At times it becomes cloudy and a few organisms resembling gonococci may be found in it. If we urethroscope these women we find at times, over the bladder neck or in the urethra just external to the bladder neck, a semipolypoid condition. These masses are always destroyed by elec-

trocoagulation in the same manner as a vesical noeplasm.

Bladder neck bars. As the result of an old urethral and bladder neck inflammation incident to a chronic gonorrheal urethritis a distinct bar develops. We have only seen 2 of these cases, but more have been described by Caulk and others. They are best treated by destruction with the aid of a Collings's electrotome.

Bartholinitis

In the lower right and left vulvovaginal angle we find a tiny little structure capable of producing great suffering, known as the vulvovaginal or Bartholin gland. We shall

3. Corbus Cervical Electrode as Applied to Cervix (Corbus).

not take up any of your time with a discussion of the possibilities of a nongonococcal infection; suffice to say they are unusual. It has been claimed, and the assertion seems well founded that 40% of gonorrheal infections in the female are complicated with bartholinitis. This condition has long been known as particularly resistant to therapy. Many surgical procedures have been advocated, such as radical excision, but as a rule these measures are futile. As a matter of fact, by exposing lymph spaces surgery disseminates rather than limits the infection. Diathermy to date, offers our best means of relieving this troublesome lesion. Locate the duct orifices and insert a blunt-tipped needle, and sterilization is accomplished in a few minutes. There is often considerable reaction and if both glands are involved, an interval may be allowed of 5 to 7 days between treatments. Following this some good antiseptic, such as mercurchrome 10% completes the procedures.

Endocervicitis

Upon completion of the urethral treatment, the thermophore is withdrawn from the urethra, a small vaginal speculum introduced, and the cervix brought into view. We say small sized speculum, to reduce trauma for many of these cases suffer greatly when distended by a large instrument. The next procedure consists in clearing the cervical canal of the very thick mucus which is often present. This is best done by swabbing with a strong alkaline solution. We are now ready for the introduction of our cervical electrode. Which shall we employ? Where the cervix will tolerate an instrument, either the Corbus or the Peacock electrode may be used. The latter has the advantage that it is made in several sizes, the merit of which is obvious. If one is not in harmony with the idea of introducing an instrument into the cervix, the Chapman electrode may be used in the vaginal fornices. The outfit which we use in this treatment looks rather formidable and the operator, before proceeding further will do well to obtain the patient's confidence. She must be told that the heat will come on very gradually and that there will be no burn. Burns are very annoying and frighten the patient. A silent machine is greatly desired, as the mental strain on the patient is then not so severe. An instrument which operates on an alternating current is almost noiseless. Where a rotary converter is used it may become a real nuisance on account of the noise. The current is turned on very gradually, that is about 100 milliamperes every 30 seconds until we reach the point of tolerance. This is often as high as 1000 milliamperes on the dial. In degrees Fahrenheit it will reach about 114 to 117 or 46 to 47° C. At about this point the heat can be stabilized for 40 minutes. When our patient begins to feel cramps or to be otherwise disturbed by the heat, the current must be reduced until she is eased. The patient will often liken the cramps to menstrual pains. It is noteworthy that if the intestinal canal is full of gas these pains will be felt much earlier. A similar

condition applies when we are treating prostates and seminal vesicles. There is some difference of opinion as to temperature used and duration of treatment. We feel that we should give the patient about as much as she can tolerate and for as long a period as possible. We have seen reports of 10 and 15 minute treatments, the patients being reported free of gonococci, discharge, and symptoms. For some reason we have never been able to obtain such speedy results. We say, at risk of repetition, that a very thorough penetration of practically all the lower genito-urinary tract is necessary and that it must be maintained for a considerable period. We have found, as have others, that it is advisable to alternate the external electrode; that is, one day over the abdomen and the next day over the sacrum, so that all parts of the cervical canal will be equally well exposed. Corbus and O'Conor are obtaining excellent results with a mesh belt encircling the waist line. When one removes the cervical electrode, that area should be intensely hyperemic and a considerable amount of serum flow from the canal. At times an area of distinct whiteness will be noted extending out from the os. This usually means that we have been a little too vigorous in the application of our heat. In the many times we have had it occur we found it productive of no ill effects.

How often shall we repeat these treatments? For all practical purposes we find twice a week to be adequate. The treatments are to be continued until the patient has had a series of at last 5 gonococcus-free slides. The discharge should also have ceased. One of the first things that the patient notices is early subsidence of the discharge. We must not, however, be lulled into a false sense of security by this, as we have often found slides loaded with gonococci when there was but little discharge.

We are frequently asked the question, is diathermy contraindicated in the presence of pelvic disease such as pyosalpinx? This can be positively answered in the negative. We believe this has been quite clearly shown by Cherry. Not only is diathermy not contraindicated, but we feel there is every indication for its employment in such cases. Every one which we have seen has been greatly improved and in many an abdominal section has been avoided. In pelvic lesions following an abortion or other type of infection it is not indicated. The reason for this is quite plain and is due to the resistance of other pyogenic bacteria which require a much higher degree of heat than would be permissible in the treatment of gonorrhea. Such heat too closely approximates surgical diathermy. As

	URETHRA				CERVIX			
Case number	Time in minutes	Milliamperes	No. treatment	Smear negative	Time in minutes	Milliamperes	No. treatment	Smear negative
1	20	700	7	5	20	1000	12	8
10	20	600	8	4	20	800	10	6
20	20	600	8	6	30	800	12	7
25	20	600	9	6	30	800	7	3
30	20	500	8	5	40	1000	7	3
35	20	700	10	7	40	1000	6	3
45	20	800	7	5	40	800	10	7
60	20	600	10	7	40	800	12	4
75	20	500	12	9	40	800	7	2
100	20	500	6	3	40	1000	6	3
105	20	500	5	2	40	800	9	6
110	20	600	10	7	60	800	8	4
120	25	700	5	2	60	700	8	*
125	20	700	5	2	60	800	12	8
135	20	500	5	2	60	500	8	1
145	25	600	7	2	40	700	10	7
150	20	700	8	4	40	600	9	6
160	20	700	7	5	40	1000	8	4
170	20	700	6	3	40	800	12	8
180	20	800	5	2	40	700	7	3
190	20	500	8	2	40	800	8	5
200	15	500	5	5	40	800	12	9

Cherry states, it is an activating agent to old pyogens.

Results

We have followed this technic since publication of the first paper by Corbus and O'Conor, and we feel that all owe a debt of gratitude to these pioneers. Through our associates and correspondents, as well as from the material at our disposal, we have complete notes on 500 cases. In our own service and that of our clinical associates there are about 200 cases which we have observed directly. In this group the apparent bacteriologic and clinical cures are about 70%, a figure which is highly satisfactory. The vast majority of these infections were acute. The chief difficulty encountered has been with the urethral cases. Here we find a number of reports to the effect that the patient was unable to tolerate the electrode. In the 200 cases which we have observed directly about 10% could not continue urethral diathermy. The table of cases from the 200 we have observed gives a good idea of the results one may expect.

Summary

(1) In diathermy we have an ideal method for the treatment of gonorrheal infections of the urethral and cervical canal with its complications.

(2) All treatment is conducted by the physician so that he is in contact at all times. It must, however, never be intrusted to a so-called technician.

(3) Provided one is willing to keep within bounds, it is painless and the procedure not complicated.

(4) It protects the patient, as she does not have to keep medicines or douche bags about her room.

(5) Our observations, and those of others, show at least 70% of cures, which is certainly excellent.

(6) This report is based on 500 cases, not only in our own, but from several of the largest services in the United States.

THE SYNDROME OF COMPRESSION OF SPINAL ROOTS AND SPINAL CORD

Morris Grossman, M.D.,

Associate Consulting Neurologist, Monmouth Memorial Hospital; Adjunct Attending Neurologist, Mount Sinai Hospital, New York City.

Asbury Park, N. J.

The syndrome of compression of the spinal roots and the spinal cord occurs not infrequently. In the acute service of a general hospital, where patients are constantly admitted for treatment of injuries due to one cause or another, the possibility of injury to the spine must always be borne in mind even though more evident injuries to other parts dominate the clinical picture. From the medical and surgical wards of the Monmouth Memorial Hospital, at Long Branch, and from my private practice, I have chosen some typical cases of either tumor or fracture of the spine to illustrate the various stages of root irritation and compression of the spinal cord. Obviously, the clinical syndrome of involvement of the roots or cord in fracture of the spine differs from that seen in tumors only in the abruptness of evolution of the clinical picture. I, therefore, do not hesitate to discuss these 2 seemingly unrelated conditions together.

Any patient who has a progressive disease of the spinal cord where the motor, sensory, or autonomic functions are disturbed, is entitled to the suspicion at least that a spinal cord tumor is the cause of his disability. Among the motor signs, some are due to involvement of the peripheral and some of the central motor fibers. Involvement of the peripheral motor fibers produces spasm, tic, fibrillary tremors, atrophy, loss of power and tone, as well as changes in the electric conductivity of the muscles affected. The skin and tendon reflexes innervated from the roots involved are diminished or lost. Involvement of the central motor fibers is indicated by weakness or paralysis of the limbs on the side involved. The muscle tone and tendon reflexes are increased. There may be ankle

clonus and pathologic toe reflexes, as the Babinski and Oppenheim responses usually appear. The abdominal reflexes are diminished or absent.

The sensory signs may be due to irritation of the roots or involvement of the sensory tracts within the cord. Pressure on the posterior or sensory roots gives rise to pain usually described as being severe, shooting, stabbing and neuralgic in character. It usually follows the course of the nerve formed by the roots involved, and is worse on sneezing, coughing, or any expulsive effort. Paresthesia, variously described as tingling, numbness, coldness, and a feeling of ants or worms crawling under the skin, is frequently present. The neuralgias, suboccipital, intercostal, and bilateral sciatic pains,[1] are frequently the earliest indications of root irritation from tumors of the spinal cord. Tract pains are usually bilateral and are frequently described as constant, dull, boring, throbbing, or burning in character. The objective sensory disturbances consist, as a rule, of a level of hyperalgesia and hyperasthesia at the segment where the roots are irritated or the cord is being compressed. Below this level, in extramedullary lesions, pain and temperature sensibility are involved on the side opposite to the point of compression. Next, vibration and postural sense, and last of all touch is affected. In intramedullary lesions any of the tracts on the side of the cord involved may be affected early.

Disturbance of the autonomic functions may be indicated by vasomotor changes in the extremities; the skin becomes glossy, and the parts become cyanosed and feel cold. There may be excessive sweating; disturbances in the bladder and rectal functions; in high cervical lesions there may be disturbance of respiration and cardiac action; in lower cervical lesions, the ciliospinal arc may be interrupted, causing a Horner's syndrome, either irritative or paralytic.

From this general survey of the symptoms found in lesions of the spinal cord, I shall attempt to describe the typical clinical picture presented by a patient with an extramedullary, one with an intramedullary, and one with a lesion of the cauda equina.

Tumors may appear at any level of the cord. Most frequently they are found in the thoracic, next in the cervical, and least frequently, in the cauda equina region. The line of invasion in extramedullary tumors of the cord usually follows a fairly consistent course; the earliest manifestations are those of root irritation or compression. Depending on rapidity of growth of the tumor, signs of cord compression appear; at first slight, then more marked, and finally, if the compression is not relieved, the picture of a complete transverse myelitis supervenes. When the tumor is situated on the anterior surface of the cord spasm, cramps or fibrillary tremors may be the earliest indications of root irritation; later, diminution of tone and atrophy may be detected in these muscles. Any abnormal attitude of the head, neck, or shoulders, should be carefully investigated. The skin reflexes of this area may at first be present, but soon they will diminish and disappear. Electrical examination may show early disturbance in response to the faradic current. When the posterior root is involved, pain, hyperasthesia, or paresthesia, may be the initial symptom. In most cases the pain is described as severe, stabbing or shooting in character, while in others the pains come on in paroxysms, are not so severe, and may even disappear entirely for some time; later, they return and remain constant, with acute exacerbations from time to time. The paresthesias are subject to the same variation. The hyperesthesia may become so intense that the slightest pressure becomes intolerable. The erect posture, coughing, sneezing, straining at stool or any expulsive effort tends to increase intraspinal tension and aggravates the symptoms of root irritation.

The following cases will serve to illustrate the stage of *root compression.* Case 1. A. W., 24 years old, housewife, was referred to me for consultation by Dr. J. Grossman on March 13, 1921, with the diagnosis of spastic torticollis of 6 weeks' duration. Her family and past history had no bearing on present illness, which began 6 weeks before she came under observation with severe sticking pains in the back of her neck. She could not keep her head straight because of the pain and a

cramp in the neck muscles on the right side. The pain remained localized for 2 weeks and then began to radiate to the base of the skull and down to the shoulders and middle of the upper arms; it was sharp, severe and sticking in character. For the past 2 weeks there has been further extension down the right arm to the fingers of the right hand. The pain is aggravated on movement. There are no paresthesias, nor is there any weakness in any of the muscles. The pain in the arm is intermittent while that in the neck is constant. She cannot eat or sleep because of the pain. There are no bladder, rectal, or other symptoms.

Physical examination showed the following neurologic signs. Her medical examination was negative; station and gait normal; spastic torticollis on the right side, and marked pain on attempting to move the head; all of the superficial and deep reflexes in the upper and lower extremities present and normally active on both sides; an indefinite area of hyperalgesia in the upper and midcervical segments, otherwise all forms of sensation were normal below this level; a postural dorsolumbar scoliosis, and the upper cervical vertebras were tender to pressure. Roentgenogram of spine, blood Wassermann, and urine examination were all negative. A tentative diagnosis of an early spinal cord tumor was made and she was advised to enter the hospital for further study, and, if necessary, for surgical treatment. She failed to do so and disappeared from observation, not to return until July, 1924, when she stated that her pain had become so severe after she left in 1921, and she reacted so severely to it that she was sent to the Manhattan State Hospital because of her mental condition; remained there for 6 months and then her pain and the spasm in her neck muscles became better; was free from pain until 4 weeks go when the pain returned and has been getting progressively worse; her neck is again stiff and her right arm has become weak. Examination showed the following signs: Marked rigidity of the neck and tenderness of the upper cervical vertebras; slight atrophy of the shoulder girdle muscles; deep reflexes slightly more active on the left side; abdominal reflexes not elicited; no pathologic reflexes elicited; sensory examination showed a definite area of hyperalgesia over the cervical segments and diminished sensation in the sacral segments of both sides and on the right leg below the knee.

She was operated on and a large glioma was found in the cervical region, but it had involved the cord to such an extent that it could not be removed entirely.

Case 2. A 10 year old boy, was admitted to the surgical service on July 1, 1927. Present illness began yesterday; while coasting he collided with an automobile; received many contusions about the left shoulder and abdomen; both bones of left forearm fractured. He was in severe shock on admission and complained of severe pain in his abdomen. He vomited once during the first night of his admission. After recovering from shock he complained of pain about the left wrist. About 1 month after injury he began to suffer from severe paroxysmal pains about the left shoulder, radiating down the left arm.

Neurologic examination showed a Horner's syndrome on the left side; the left pupil was smaller and the left palpebral fissure narrower than the right; muscles of the left shoulder girdle, left arm and forearm showed a well-defined weakness with atrophy and loss of the deep reflexes; sensory examination showed a definite area of hyperalgesia in the upper dorsal and lower cervical segments of the cord; deep reflexes in the right arm were present and normally active, left could not be tested; abdominal reflexes and deep reflexes in both lower extremities present and equally active on both sides; no pathologic toe reflexes. X-ray examination showed a fracture of the sixth and seventh cervical vertebras.

These cases well illustrate the motor and sensory phenomena that result from irritation or compression of the anterior or posterior roots. In neither case was there any evidence of involvement of the cord at the time of first examination.

Cord compression. From this early stage of root irritation which may last for a few months only if the tumor is a rapidly growing one, the patient passes into the stage of cord compression and will then notice that in

addition to the symptoms and signs previously described he has developed some stiffness and weakness in his arm or leg. Gradually the stiffness and weakness increase to a point where actual paralysis exists. Examination shows spasticity in the limbs affected; deep reflexes are more active on the side being compressed than the other; abdominal reflexes less active on that side; ankle clonus and Babinski responses may be elicited. Sensory examination usually shows a definite level of hyperalgesia over the area of compression; below this level, usually beginning in the lowest segments of the cord, disturbances in pain and temperature are found on the side opposite to the point of compression. This picture of motor paralysis on the side of the lesion, with disturbance of pain and temperature sensibility on the opposite side, is known as the Brown-Sequard type of paralysis, and usually indicates an extramedullary compression of the cord. Mild bladder and rectal disturbances usually appear at this stage. As the compression increases, the muscles on the other side become involved and a similar disturbance in tone and reflexes becomes apparent. The clonus and Babinski become bilateral; there is usually marked tenderness to pressure over the vertebras overlying the tumor; area of hyperalgesia marking the upper level of the sensory disturbances is fairly constantly present; below this level there is disturbance of pain and temperature on both sides, which increases in intensity in the sacral segments of the cord; vibration and postural sense, as well as touch, are disturbed on both sides, but most profoundly so on the side where the cord is being compressed. Bladder and rectal functions are markedly disturbed; beginning with frequency or slight difficulty in starting the urinary stream, and bladder disturbances become progressively more marked until there is complete retention with overflow incontinence. Obstinate constipation may appear. The spinal fluid shows the characteristic change which appears in compression of the cord; the color becomes yellow, due to the formation of xanthochromin; globulin content becomes increased; and there is a tendency to rapid, spontaneous coagulation on standing. The fluid pressure may be decreased and the Queckenstedt manouver gives a negative response.

If the pressure still continues unrelieved, the patient passes into the stage of complete compression and shows all of the signs of a complete myelitis. The motor paralysis is now complete; is usually spastic in the beginning but may become flaccid later on; painful flexor contractures develop; in all except lumbar cord tumors the legs are flexed on the thighs, and the thighs are drawn toward the abdomen; superficial and deep reflexes are abolished; reflex excitability is marked; Babinski and its modifications are present. All forms of sensation are lost below the level of hyperalgesia which marks the level of the lesion; this remains constant and unchanged. There is incontinence of urine and feces; bed sores, vasomotor disturbances, and other trophic changes are commonly present. Throughout all of these stages of compression, the level of hyperalgesia remains fairly constant. The motor and the sensory tract paralysis always begins in the areas supplied by the lowest segments of the cord and gradually creaps up to the level of compression. The following 3 patients will illustrate these various degrees of compression.

Case 3. A 33 year old male, white, truck driver, was in a collision the night before his admission to the hospital. He was thrown from the seat of his truck and stunned for a few minutes. When taken from under his truck, he found that he was unable to move the right arm and leg; also felt a tingling sensation in his right arm and leg, in addition to severe pain in the region of the right shoulder. The power in his leg gradually returned but not to the normal degree. The arm remains about the same since his injury. There were no bladder disturbances but his bowels had not moved for 4 days. He also had some difficulty in respiration.

Physical examination showed the following signs: Right pupil was about half size of the left; slight ptosis of the right lid; pupillary reactions, optic and other cranial nerves normal; unable to move the right arm and showed definite weakness in the right

leg; fibrillary tremors in the right deltoid muscle; was able to flex and extend the right forearm slightly but tone in the muscles was diminished. The right triceps reflex was absent but all other deep reflexes were present and normally active. The abdominal reflexes on the right side were less active than left, and a Babinski response was elicited on the right side. Sensory examination showed a definite level of hyperalgesia from the midcervical to the upper dorsal region; below this level pain and thermal sensibility was diminished on the left side with increasing intensity in the sacral segments. Touch, vibration, and postural sense were normal. There was marked tenderness to pressure over the vertebras from the midcervical to upper dorsal level. X-ray examination showed a fracture of the scapula, clavicle, and ribs on the right side, in addition to fracture of the vertebras in the midcervical region.

On January 13, 1927, he was operated on and many fragments of bone were removed. He has made an uneventful recovery.

Case 4. A 37 year old white male, painter, was admitted to the surgical service on September 13, 1927, stating that on the previous night, while under the influence of liquor, he was struck by an automobile and rendered unconscious. When he came to he found that he was unable to move either his arms or his legs.

Physical examination showed the following signs: Horner's syndrome on the right side; right pupil smaller and right palpebral fissure narrower than the left; neck held rigid on account of severe pain on movement; small tender gibbus in the lower portion of the cervical spine; ocular and other cranial nerves negative; almost complete motor paralysis in all 4 extremities—slight movement being present in both hands only and what little power existed was greater on the left side. The abdominal reflexes were feebly present in the upper quadrant but absent in the lower; triceps, and wrist jerks absent; knee and ankle jerks, as well as the biceps, present and equally active on both sides; Babinski response present on the right side. Sensory examination showed a definite level of hyperalgesia from the fourth cervical down to the first dorsal segment; below this area, pin-prick diminished on the right side and completely lost on the left; same true of thermal sensibility. Posture, touch, and vibration were perceived. X-ray examination showed a complete dislocation of the fourth and fifth cervical vertebras; fifth being dislocated backward nearly the width of the body and articular surfaces; no fracture evident.

Five days later a laminectomy was done but it was impossible to reduce the dislocation. There was some return of sensory and motor function after operation, but on discharge the patient showed evidence of an incomplete transverse myelitis, with loss of bladder and rectal functions.

Case 5. A 57 years old housewife, admitted to service November 13, 1927. Illness began about 9 months ago with severe, sharp, shooting pains between shoulder blades. Pain gradually became more severe and constant, and would be aggravated on movement. Shortly after this she began to have gastric distress and noticed that her abdomen was continually distended; appetite became poor and she lost some weight. She next noticed that her legs had become weak and that she dragged her feet when walking; legs also began to tremble. Three weeks ago she lost control of her bladder function for 1 night, and since then has periods when she has poor control of her bladder. She has developed obstinate constipation.

Physical examination: Her pupils, optic and cranial nerves are negative; slight deformity of the fifth and sixth dorsal spines, and markedly tender to pressure over this region; upper extremities normal. The abdominal reflexes were not elicited; complete spastic paralysis of both legs with marked increase in tone, and marked hyperexcitability of the muscles; deep reflexes hyperactive and a bilateral ankle clonus and Babinski response with all its modifications. Sensory examination showed a definite level of hyperalgesia from the second to the fourth dorsal segments; below this level pain and thermal sensibility were lost on the right side and diminished on the left; vibration lost below

the anterior superior spine, and touch was disturbed in this area; muscle and joint sensibility still intact. Her general medical examination was negative and no evidence of a primary neoplastic focus could be established. X-ray examination of the spine showed a complete destruction of the fourth dorsal vertebra not due to tuberculosis, probably a neoplasm. A gastro-intestinal examination was attempted but not completed on account of discomfort to the patient. There was some thickening around the gall-bladder. Lumbar puncture showed a complete block. Blood Wassermann was negative. Her condition remains unchanged.

Intramedullary lesions. In this type of cord invasion, the root symptoms and signs are usually lacking. Pain, if at all present, is of the tract variety; usually described as being constant, dull, boring, or burning in character. It is generally localized to the back, and does not follow the root areas. It is characteristic of intramedullary tumors that they produce their symptoms by an early destruction of integrity of the cord. The motor symptoms are as a rule very extensive and pronounced, and may develop very rapidly. When the anterior horn cells are involved, fibrillary tremors in the muscles are present and atrophy is apt to be pronounced. Electric conductivity is altered; spasticity of the limbs below the level of the lesion is usually well defined and present early; superficial reflexes are diminished or lost; deep reflexes exaggerated, and ankle clonus, with pathologic toe reflexes present.

The area of hyperalgesia, indicating the approximate level, is subject to variations; it may ascend or descend one or more segments while the patient is under observation. The Brown-Sequard type of sensory and motor paralysis is only exceptionally present. The spread of the sensory disturbances takes place in the transverse axis of the cord, and approaches the sensory disturbances seen in a transverse myelitis. All forms of sensation may be involved on the side of the lesion.

The bladder and rectal disturbances are much less severe than those seen in extramedullary lesions, and, as a rule, they appear at a later stage of the disease. Vasomotor disturbances in the extremities are apt to be prominent features. The hands and feet may be blue and cold; skin becomes smooth; edema may also be present; there may be excessive local sweating of various parts of the body; tendency early for trophic disturbances to appear, and decubitus is prone to develop. Local vertebral tenderness is usually slight, if at all present. Xanthochromic fluid may be present in occasional cases.

Cauda equina. Tumors in this region are relatively uncommon. As a rule, they grow slowly and are characterized by severe pains, usually beginning in the lumbosacral region and radiating down both legs along the sciatic distribution, or to the bladder, penis, or rectum. The patient walks in a cautious manner holding the lower part of the back stiff. The muscles of the lower extremities become weak and wasted; tibial and proneal groups are usually affected first and this gives rise to a partial or complete foot drop; ankle jerks diminish and later disappear. Later, the knee jerks are similarly involved, and bladder and rectal disturbances develop. The sensory disturbances are characteristic; they first appear in the peri-anal region and gradually spread down the posterior part of both thighs, forming the so-called "riding breeches" type of anesthesia. The following 2 cases are typical examples of this type of the disease.

Case 6. A 19 year old girl was referred to me for an opinion in December, 1920. Illness began 6 months before with sudden pain, knife-like in character, in the lower part of her back; pain intermittent and radiating down both thighs on the posterior surface; lasted about 10 minutes and worse on movement or on bending the back; became so severe that she stayed in bed for 3 weeks; relieved of pain but on getting out of bed it reappeared and seemed to last for an hour at a time. Two months ago the pain became constant, and she thinks that her legs are becoming weak. Last week she had some difficulty in starting her urinary stream.

Physical examination at that time showed that the spine was held rigid; there was slight weakness in both legs, more on the right side;

right knee jerk diminished and right ankle jerk absent; an inconstant area of hyperalgesia in peri-anal region. Lumbar puncture, x-ray of the spine and blood Wassermann examinations negative. Exploration was advised but she was unwilling to be operated on. She again came under observation in May, 1923, showing approximately the same physical findings as in 1920. Radiogram of the spine was again negative, and she refused to be explored. On October 16, 1927, she again came to my office and on this occasion showed the following physical findings; walked with marked stiffness of the lower spine; partial steppage gait on the left side; marked weakness; atrophy with loss of tone in muscles of the left leg; left knee jerk very much diminished, and both ankle jerks absent. Sensory examination showed a typical "riding breeches" anesthesia of a cauda equina lesion. There was a marked gibbus, which was very tender to pressure in the lower lumbar portion of the spine. X-rays showed destruction of the bone due to a neoplasm. She was given deep x-ray treatment without benefit. A laminectomy was then done and a giant-cell sarcoma was found invading the bone. It could not be removed.

Case 7. An 18 year old school girl was admitted to the service on July 15, 1927, suffering from a sudden attack of pain in the lower part of her back starting 2 yr. before. The pain was sharp and radiated down the back of the right leg. It lasted for 2 weeks and disappeared as suddenly as it came. In September, the pain returned and then began to radiate down both legs. Two months later she began to have numbness in both legs. Her symptoms became progressively worse and she entered the Neurologic Hospital, where she was operated on for a spinal cord tumor. No tumor was found and she was discharged with the diagnosis of a cauda equina neuritis. Her symptoms became progressively worse and by December of 1926 the weakness in her legs was so marked that she was unable to stand or walk. At about this time her bladder function became disturbed and it became necessary to catheterize her. This condition lasted for about 2 months and then improved a little but she has never regained normal control of her bladder. On admission to this hospital she showed a flaccid paralysis of both legs; atrophy and diminished muscle tone in both thighs and legs; left knee jerk barely elicited, while the right knee and both ankle jerks were absent. The lower abdominal reflexes are also absent; no pathologic reflexes elicited. Sensory examination showed the typical riding breeches anesthesia with diminished pin-prick in the lower lumbar segments. Vibration was lost over the sacrum, but perceived better on the right than the left leg. She was given a course of deep x-ray exposures and while under treatment regained some power in her legs and complete control of her bladder. She was discharged and went to the Montefiore Hospital, where she was again explored and an inoperable sarcoma was found.

Summary

To summarize, it may be emphasized that when a patient presents symptoms of a spinal cord disease characterized by a progressive disturbance of the motor, sensory, and autonomic functions, whether associated with or without pain, he is entitled at least to the suspicion that some spinal cord disease is at the base of his disability. When they appear rapidly, after an injury, a fracture of the spine should be looked for.

The treatment in extramedullary tumors is always surgical. This should be instituted as soon as the process is definitely localized; for if it is delayed too long, secondary degeneration of the tracts ensues and the operation is of little avail in restoring complete function. In fractures of the spine, where there is evidence of compression, but not complete transection of the cord, early operation is indicated; and this should be followed by proper immobilization of the spine. In some intramedullary lesions, and tumors which are inoperable, the application of radium, or exposure to deep x-ray therapy has been of some help.

SANATORIUM CLINICS IN THE COUNTY

B. M. Harman, M. D.,

Superintendent of the Essex Mountain Sanatorium

In a previous article on the "Place of a Hospital or Sanatorium in a Community", discussing the social relationship between the sanatorium and the community it serves, I have said "This is most readily done through the clinics established for this purpose and for the purpose of the detection of doubtful cases". Here, I merely indicated 2 functions of the sanatorium clinic, and these functions are hardly of primary importance. The primary purpose of the sanatorium clinic is to place an agent for accurate diagnosis at the disposal of the local physician, in a convenient location, and to aid all local health agencies in the diagnosis and disposition of persons suffering from tuberculosis. In other words, the clinics established (as they should be) in the various municipalities or boroughs which make up the county act as feeders to the sanatorium, supplying patients to the sanatorium by: (1) Assisting local physicians with aid in diagnosis; (2) maintaining friendly relations with local health agencies and giving them every possible assistance; (3) detection of doubtful cases; (4) health propaganda.

The sanatorium is best equipped to assist local physicians with their diagnoses, because it has at its disposal diagnostic aids which they can usually secure only with a loss of time and a heavy cost to their patients, such as x-ray apparatus, laboratory service, etc.

The sanatorium physician is a specialist. From experience he has come to connect certain chest sounds, to which his ear is especially tuned, with conditions which experience has taught him to associate with tuberculosis. Knowledge of the value of sanatorium treatment makes his opinion as to the need of such care particularly convincing to the prospective patient, and last but not least he thinks of tuberculosis *first*.

It is the duty of the clinic physician to cooperate in every possible way with existing local health agencies and to encourage them to bring in all suspected cases of tuberculosis. His time is not curtailed by the call of other duties and he can study the patient as long as necessary to arrive at an accurate solution of the problems brought to his attention. His is the moral responsibility for securing sanatorium aid for the most urgent cases, and for the establishment and maintenance of confidence and mutual benefit between the patient and the sanatorium. To him falls the duty of interpretation of the necessary mechanics of admission to the sanatorium and the following up of the discharged patient.

For the detection of doubtful cases the special clinic has at its disposal all the resources of the modern well equipped sanatorium; laboratory for sputum examinations and blood tests; the x-ray equipment, which is an invaluable aid; together with the attention of more than one physician who has examined hundreds of chests and followed the progress of tuberculosis in several hundreds of patients.

The most efficient health propaganda today is that of the satisfied, restored patient. There is no more effective health propaganda than that daily disseminated by the thousands who have returned to their homes and duties from the sanatoriums of the country, with the disease arrested. Their regular attendance at the clinics for reëxamination; their cheerful acceptance of advice and admonition; more frequently, their physical appearance; are beacons of hope to the latest victim of this dread disease. The patient who returns to his home with his health restored, looks back upon his stay at the sanatorium with much the same satisfaction and interest with which the college graduate regards his alma mater. He cherishes the social contacts he has made, and not infrequently his interest in his sanatorium acquaintances, who are still "curing" takes the practical form of visits, gifts and other forms of encouraging aid. He feels that he has learned a great many valuable health lessons that his less fortunate associates do not know, and frequently becomes the director and arbiter of the health of his family and friends. This attitude should be encouraged and each discharged pa-

tient should feel that there is, near at hand, an agent of his own health school in whom he has the confidence established by his own treatment at the sanatorium, to which he can refer his friends and acquaintances.

Sanatoriums are established and maintained at great cost to the people of the county. They are for their use and protection, but to secure the full advantage of these facilities there must be coöperation and understanding.

The administration of such an institution must be business-like, in order to secure the best results at the least possible cost. This requires a definite plan of procedure and certain mechanics which are only too frequently designated by the uninformed as "unnecessary red tape". It is not possible, nor is it necessary, owing to the peculiar nature of tuberculosis, that a sufficient number of beds can be maintained so that all the tuberculous can be admitted immediately on diagnosis. There will always be, in the largest and best regulated sanatoriums, a waiting list. During this period of waiting the clinic physician continues his observation of the patient and directs his conduct. This pre-sanatorium period can well be utilized by imposition of some of the personal discipline which the patient is otherwise taught during his sanatorium stay; such as early hours, rest, best means of controlling a cough without drugs, some direction of diet, etc.

A pre-sanatorium period is also necessary for the adjustment of business affairs, rearrangement of the home, and all too frequently the placing of children, in preparation for an absence the possible length of which has been indicated by the clinic physician. Upon a satisfactory adjustment of affairs of the home much depends. The peace of mind conducive to complete mental rest is a necessity in order to secure the greatest benefit. Recovery has been retarded for many by worry over financial and home conditions whose adjustment has not been completed, or attempted, until the patient has entered the sanatorium and only then discovered the probable length of his enforced inactivity. A clear understanding of the necessity for such waiting for admission, and full recognition of the necessity for formal application required by law, would greatly lessen the critics of necessary "red tape". This understanding is best arrived at by careful observation of the working of an established sanatorium clinic.

The advantages of the sanatorium over home treatment have too often been pointed out for me to enlarge on them here. In a metropolitan area filled with factories and congested living districts, the advantages are too obvious to require specific indication. So, if a period of sanatorium care is indicated for all tuberculous persons in the county, it is obvious that the county sanatorium must have a representative in the most strategic points of the county to insure to the people that care which is their right.

The cost for the establishment and maintenance of these clinics can be borne by the sanatorium with only a small addition to its annual budget, and comes well within its function as an agent for public health. The number of clinics maintained will depend upon the size and population of the county. But no definite community should permit itself to be without one. Upon application to the sanatorium for the establishment of such clinics, there should be prompt response and definite action; for without such clinics the sanatorium cannot fulfill its duty to the community.

Medical Ethics

STRAIN AND STRESS

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

"Neither the nature nor the amount of our work is accountable for the frequency and severity of our breakdowns, but their cause lies rather in those absurd feelings of hurry and having no time, in that breathlessness and tension; that anxiety of feature and that solicitude of results, that lack of inner harmony and ease, in short, by which the work with us is apt to be accompanied, and from which a European who would do the same thing almost nine times out of ten would be free."

—William James.

We shall make no mistake if we read the above quotation twice. Few doctors who have survived several decades of professional work will fail to realize its meaning. It is "a writing on the wall" that the younger generation should heed. The claim that we are overworked is an easy alibi, and we are apt to blame it for many of our shortcomings, in health, efficiency and even morality. If we fail, even, to go to church, it is because we are overworked. If we fail to bestow those little indescribable but necessary attentions on members of our own family, it is because we are overworked. If we fail to keep accurate accounting of our labors and so cheat ourselves and those dear to us, it is because we are overworked. If we fail to attain to that high standard of professional worth to which in our early professional life we so nobly aspired, it is because we are overworked.

But there is no escaping the fact that the men who have accomplished the big things in this world have been those men who were notoriously overworked. It is a fair statement, moreover, to make, that those who have frequently had the longest lives have not been the drones, but the workers in the hive. We easily can call to mind many instances and names. Read of the lives of our captains of industry. Read of the lives of our great financiers. Read of the lives of our great medical and surgical luminaries—think what Osler accomplished! Read the biographies of great scientists and inventors. What about Edison, with his 3000+ recorded patents! Look into literature. Who have left most lasting marks? Do you think that Shakespeare was overworked? Go to the arts and reflect. Did Micheal Angelo lead the life of a drone? He must have been overworked. It is the same in the political arena—the men who are overworked are the men "who deliver the goods".

So it is that in all branches of human activity it is the man who is overworked who is most likely to do something for you. There must be some reason for this. You can say it is unusual cerebral activity, concentration of purpose, industry, or a broad and deep understanding of the humanities. Perhaps it is something else.

Now in order to survive, one must know how to work. Some know this intuitively, but most have to acquire the knack by a slow and hard schooling. We must not dissipate our interest with too many side issues. A keen and thoughtful mind will "cut out" his unnecessary activities, and will discern the essentials. To spread oneself out too thin is to entail dissatisfaction in one's work, as the work will surely suffer in quality. One should stop and think. What is wrong with our methods? While it is "the pace that kills", that pace can even be accelerated in safety if proper training and system be the pacemaker.

One has stood on the corner of Wall and Broad Streets, New York City, and carefully observed the facial expression of the passers-by, and has observed the tense and drawn lines, the quickened jerky steps and the complete lack of repose in bearing. Is what we observe absolutely essential to the transaction of the accumulation of money? Is the pace worth the price? Making all due allowance for environment (climate), making all excuses for the personal equation of temperament, making all allowances for the driving force of want and necessity, what do we win if we gain the whole world and insidiously but surely acquire an unstable nervous system, an increasing disturbance of our cardio-circulatory system with its inevitable high blood-pressure, its accompanying nephritis; or a functional disorder of our digestive apparatus only too likely to slip into organic changes of a more serious nature, demanding a sudden stoppage of all work, and a rest on that soft and delightful couch—the operating table?

It is often remarked: "We can't help ourselves. We get into the race and cannot stop, we get into the rut and cannot skid out; it is our very nature to work and live at high speed." But do we *try* to reform? The human engine must, like any other, have attention paid to its running parts, not at stated intervals, but always. We should give ourselves more recreation, more holidays, and more periodic examinations.

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE:
CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:
HENRY O. REIK, M.D., F.A.C.S., Apartment 22 Grammercy Court, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

VOLUNTEERS FOR PROGRAM

We are informed by the Chairman of the Program Committee, Dr. Darnall, that while preparations for the annual meeting of the Medical Society of New Jersey are well advanced, as regards the scientific program, there is still room for a few papers. This applies particularly to the general scientific sessions of Thursday and Friday, June 13 and 14, but we infer that the same statement holds good for the Pediatric Section, and the Section of Eye, Ear, Nose and Throat Diseases, both of which will be in session on these same dates. Members desiring to present papers at any of the scientific sessions of the state society at its next convention should communicate at once with Dr. W. E. Darnall, Atlantic City, N. J.

LEGISLATION AT TRENTON

In last month's Journal we discussed the combined chiro-osteo-naturopathic proposition instituted in the form of Assembly Bill No. 25, and the reported introduction of a special osteopathic measure by Senator Chandless.

As A. 25 combined the wishes of 3 cults and appeared to promise a union of forces to fight for accomplishment of a common purpose, it seemed to indicate a certain degree of shrewdness and a determination to win. But, the osteopaths were, apparently, not satisfied and within 2 weeks had submitted S. 44—much the worst Bill they have ever put up in this state—claiming additional privileges and honors for themselves; they would fain practice "obstetrics and minor surgery without restriction" (which sounds to us like *major* surgery) and be permitted full usage of the title "Doctor" and its abbreviation "Dr." Nor are they now content with the definition of the word "osteopathy" as determined by themselves in the existing law; "a method of healing whereby displaced structures of the body are replaced in such a manner by the hand or hands of the operator that the constituent elements of the diseased body may re-associate themselves" is far too limited to cover their present aspirations. It is well known that in different states, and at different times in some states, both the osteopaths and the chiropractors have offered widely variant definitions of their "system of therapeutics", but the new definition presented in S. 44 ought to solve their difficulties for all time, as it is a masterpiece of verbiage; i. e. "the osteopathic system of therapeutics is that system of therapeutics taught in the legally incorporated schools and colleges of osteopathy or practiced in the clinics and hospitals in connection therewith". Nothing could be simpler; no statement could be more complete and tell less about the subject. And, there is nothing in the definition to argue about; "I am what I am".

Well, the osteopaths having broken away from the tripartite Bill, it was natural for the other sects to consider their own special interests, and at the next sitting of the House the naturopaths had A. 145 introduced; in all probability the chiros will have submitted a

Bill of their very own before this Journal is off the press.

The Executive Secretary, the Welfare Committee, and some county society officers have been actively engaged in combating all these proposed laws, but every member of the state society should perform his own personal duty in this respect, and especially must everyone hold himself in readiness throughout the month of March to answer any call for assistance, as it not infrequently happens that undesirable legislation sneaks through legislative halls during the busy, closing hours.

You may ask why the medical profession should be required to make a fight of this sort; why the public does not look after its own protection? Well, we *should* not be required so to do, but we *are*. The general public rarely knows anything about legislation until after it has become law; when it is too late to do anything about it. As the time honored guardians of the public health it perforce becomes our duty to protect the public against such threatening legislation and against its own lack of interest in self-protection.

INCOME TAX REPORTS

With the advent of March we face once again the detestable ordeal of trying to recall what we did with last year's income and searching for a sufficient balance at command to pay the government tax thereon. That is, a few of us are in that fix; most of us were not hit hard enough by that "prosperity" of which politicians talked so glibly during the late campaign, to put us very deeply in debt to Uncle Sam.

Knowing the lax manner in which many physicians keep their financial records, and wishing to be of service in lightening the burden of "paper work" and in facilitating the preparation of reports, we have published during the last few months several items bearing upon this annually recurring problem.

In the December Journal, an editorial directed your attention to the fact that this year you will be allowed a deduction for money spent in attending medical meetings for scientific purposes; also that you may file claims for refund of such expenditures not deducted in your reports of previous years—special forms being procurable for the recording of such claims.

In the same issue of the Journal (December, pages 814-817) we presented an article describing in detail a simplified method of book-keeping with a view to making the Income Tax Report a simple procedure.

In this month's Journal you will find complete, specific explanation of every feature of the Income Tax Blank, and instructions as to how to prepare your report; having reprinted the excellent summary made up by the American Medical Association especially for your benefit.

We hope these articles will be helpful not alone this year, on that fateful and somewhat dreaded fifteenth day of March, but that they will prove of permanent benefit through having suggested an easy and accurate process for keeping records and being always ready for a financial report as needed.

HOSPITALS AND HEALTH EXAMINATIONS

At the last meeting of the American College of Surgeons, the President, Dr. Franklin H. Martin, recommended that hospitals place their facilities at the service of physicians for the making of satisfactory periodic health examinations. Like most other new ideas, this one has given rise to some debate but we have not as yet seen any unanswerable argument in opposition. That the plan could well be tried out in the hospitals of county towns, making laboratory facilities available to physicians from rural districts, with benefit to physicians and public alike, seems almost certain. To bring the question home to the hospitals of New Jersey, we quote below an item from the King's County (N. Y.) Medical Society Bulletin, concerning the Southside Hospital in that district:

"In order to extend opportunity to every qualified doctor the hospital could furnish an examining room to which any legalized medical practitioner who is a member in good standing of his County Medical Society could bring his patient for examination, so that he might have every facility such as laboratory tests and x-ray help with consultants when

necessary, to make a comprehensive examination of his patient's condition. There should be no charge for the room and a fair charge made for the laboratory and x-ray diagnostic tests. The physician should render his own bill to his patient, collect for laboratory services, pay the hospital, and control his own business. No responsibility should be taken by the hospital, no records kept other than in the laboratory and x-ray room (and these by the Technician and Roentgenologist). The hospital is to be at no other expense—not even the use of a clerk.

Since the Southside Hospital is an approved and standardized hospital and has the facilities, it can furnish every qualified practitioner the necessary equipment and aids to insure a comprehensive examination irrespective of whether he is a member of the staff or not.

To insure protection to the practitioner the hospital should not accord these privileges to any individual not accompanied by his or her doctor or who does not carry a letter from his or her doctor in which certain services are required."

COUNTY SOCIETIES

In the Current Events section of this issue of the Journal you will find a report of proceedings of the recent Conference of Secretaries and Reporters of our Component County Societies. In the same department of the January Journal we published a lengthly discussion of "The County Medical Society's Opportunities", as seen by members of the Tristate Conference. Next month we shall present you with the record of still another meeting of the officers of the medical societies of the 3 states—New York, Pennsylvania and New Jersey—devoted exclusively to a further and more extensive consideration of this same problem. Taken in combination, these 3 reports make a fairly complete résumé of the work that is or should be performed by our county societies as fundamental factors in the organization of the American medical profession, and each of these reports may be profitably read by each member of this state society. It is through the county society that the individual member speaks, and it is a privilege, a duty, an obligation for each to familiarize himself with the functioning of his local organization. We commend this course of reading to each and everyone of our members.

In these reports there are many topics worthy of editorial mention, and we may direct your attention specifically to such questions in future issues of the Journal, because they concern matters that can be settled only by thoughtful and deliberate action of the majority of our members. At the moment, we shall limit discussion to the single point of membership.

The 2 principal reasons for organizing a county medical society are: (1) Opportunity for conferences of a scientific nature; (2) united action with reference to social and economic problems. The true strength of such an organization is dependent upon the number and character of members enlisted and the degree of efficiency with which they function as a group. It is highly desirable, from the organizational point of view, that each county society shall include within its membership all physicians from that county who are eligible. Now it "can happen", as the Chinese say, that a man may be *eligible* but not *desirable* as a member. Such an one should not be elected, for harmony of association and unity of purpose are essential to successful development of any organization. But, we can afford to be lenient and charitable in judging the character of our neighbor, and we may even trust somewhat to the hope of improving him by bringing him into contact with "his betters". The benefits accruing to the society from an increase in numbers justify the Censors in applying the rules of admission with a generous interpretation; and that does not mean any relaxation of our standards, for not infrequently a man is kept out of membership not because of what we know against him so much as because we know too little about him.

The state society desires to have every reputable physician in the state enrolled in membership. Is it asking too much to suggest that each of us shall give thought to this matter, consider especially our neighbors, and endeavor to bring at least 1 new member into the fold between now and the first of June.

Collateral Medical Reading

THE NEXT AGE OF MAN

Albert Edward Wiggam

(Reviewed by the Editor)

Among the many interesting books written for the laity and dealing with problems of life and health, few have been more widely accepted and generally read by the public than "The Fruit of the Family Tree" and "The Next Age of Man", both by Albert Edward Wiggam. We published an extensive review of the first of these in the journals of August, September and October, 1926. The second book appeared in 1927, and its deserved popularity has kept it among the books classed as current reading. Growing out of an essay on eugenics, this book presents some aspects of man's probable future on this earth which merit consideration and discussion. The author states in his preface that he does not expect eugenics to solve all the problems of society but that he hopes a proper application of such knowledge will aid in producing a race of men that may solve them; his personal belief being that "biology and psychology have recently placed in our hands new and powerful instruments and agencies by which man can greatly accelerate his own evolution, and that these discoveries of science are going to usher in a new age of man".

The first chapter, entitled "Can We Remain Civilized", deals with evolution and starts off with a review of the jungle period as a hard school to have passed through. "It is easily evident that the hard, coöperative work and the demands upon sheer intelligence and moral character which civilization necessitates run considerably against the grain in man's natural constitution. For example, as suggested by Professor Patrick, of Iowa University, only by the hardest kind of work can we collect a score of people to contemplate a superlative work of art. At the same time, with moderate effort, we can get 150 persons out to hear a public student debate or an oratorical contest; with a little more effort, we can get 2000 to witness a tennis match; while with no effort at all, we can get 20,000 to witness a baseball game, 100,000 to witness a football game, and 150,000 to witness a prizefight—with, at the same time, the whole population of America, young and old, Christian and Jewish, rich and poor, maimed, halt and blind, hanging on the radio, listening to every blow that is given and either mentally or financially wagering on the result. It strongly indicates that the masses of men are civilized only because a few leaders have forced them to behave themselves. It seems pretty evident from the analysis of human traits now emerging from the laboratories that civilization is a scheme gotten up by a comparatively few, and that it has been with only indifferent success forced on the many. For the average man has nothing to do with progress except to hold it back."

Among the eugenic problems indicated by past periods of evolution and which should give us serious concern today, is the one wherein civilization seems to reverse the processes of natural evolution. Under the new régime: "The strong, the intelligent and the sympathetic devote their time and energies to caring for the weak, the witless and the incompetent. The naturally civilized thus expend their energies in taking care of the naturally uncivilized and in giving them a chance to breed, the very privilege which nature denied them in the jungle". One of the consequences of this has already been "that the coöperative man did not have enough surplus energy left to reproduce his generous nature in an abundant brood of children, while the nonsocial and the noncoöperative man was by this very process especially set up in business as a going, breeding concern. * * * A few generations ago, down in Old Virginia, the Ishmael family, 2 members, the old man and his wife, were helpless, antisocial, thriftless incompetents. By the finest thing in civilization, kindheartedness, the Ishmaelites were kept alive; not only that, they were given a better chance to reproduce their kind than the school teachers, preachers, business men, skilled mechanics, doctors and lawyers who tried to teach their empty brains to clothe and shelter their filthy bodies and, by expensive legal procedures, prevent them from being hanged. There were 2 of them then; there are nearly 12,000 now. * * * Social capacity is caring on an immense scale for social incapacity and giving the latter nearly all the aces in the biologic deck." In this connection, attention might be called to the Inaugural Address recently delivered by Governor Larson, wherein we believe it was stated that approximately one-third of the entire state budget is expended on the care of the mentally unfit members of the population of this state. The states of Massachusetts and New York, likewise, spend from one-fourth to one-third of the taxpayers' money in taking care of people so little adapted to civilized life that they cannot take care of themselves. With the rapid increase in the number of uncivilized and unfit members of society, and the very slow increase in the

number of civilized persons, it is quite appropriate to ask how long we may remain even as civilized as at present.

That a great deal of talk and a very small amount of honest thought have been devoted to consideration of the causes of degeneracy is indicated by Wiggam's review of some prevalent opinions. For instance, regarding the somewhat widely held opinion that alcohol has been one of the causes of degeneracy, after reviewing what is known of biologic processes, Wiggam says: "No one really knows today whether the drinking of alcohol by a parent really affects his offspring or not. But, certainly, what evidence we have practically all tends toward the conviction that alcohol has been an agent—possibly a very considerable agent—in improving man both in his physical constitution and in his intelligence and moral character. * * * A very great part of the prohibition urge has been roused by the insistent plea of its advocates that all drinking, however moderate, shortens life. For 2 or 3 generations, our American youth have been frightened by tract, orator and pulpiteer with lurid statements to the effect that drinking a glass of beer or a teaspoonful of alcohol would lead to a much earlier death of the individual who embarked on so suicidal an enterprise. We have also had almost equally lurid pictures of the frightful degeneracy which even the smallest doses of alcohol taken by the parent set up in the offspring. * * * All of this same tragic story has been repeated in a thousand different forms, especially to the American people, in face of the fact that there does not exist today in any laboratory of the world conclusive evidence that the drinking of alcohol by a human parent, whether in large or in small quantities, ever set up in any direct way the slightest defect of any sort in the offspring. * * * The most hard-headed biologist is bound to respect the vast moral passion that lies behind prohibition. But another curious thing about prohibition is that it has never yet investigated whether or not alcohol is a *universal* human curse or a curse to only a *limited number* of human beings, endowed by *nature* with a peculiar temperament and physical constitution. Evidence is constantly accumulating to indicate, at least, that alcohol is a curse only to a small portion—nobody knows whether it is 5 or 20%— of the human race. It is growing in probability that alcohol is taken in excess, and therefore becomes a problem of public health and morals, only by persons who are psychopathic whether they drink or not."

Those of our readers who are interested in the question discussed in the last paragraph, will find interesting reading in "Alcohol and Longevity" published by Raymond Pearl, of Johns Hopkins University, who made an intensive study of that question as it affects the population of Baltimore. Our impression is that his results indicated quite clearly that any biologic harmfulness chargeable against alcohol resulted solely from its abuse. Wiggam makes a suggestion that might be considered by President Hoover when his administration comes into possession of the much discussed item of $24,000,000 for prohibition enforcement, to wit: "If I may venture a personal judgment, I cannot but feel that if one-fiftieth of the money expended on efforts at prohibition could be expended for an extension of the new science of clinical psychology, so that every community of 1000 persons or more should have at its service a consulting psychologist, it would do more to solve the question of alcohol, in so far as it is a social and personal problem, than all the measures of prohibition combined. It seems to me that the penetration by a skilled technical expert, into the inner life of the individual drinker, a study of his spiritual conflicts and the harrowing problems of life as he sees it, would offer more hope of the building of a sound character and of development of a will to resist temptation, than can be done by airplanes or rum fleets."

We have devoted considerable attention to the question of alcohol as it appears in this book, mainly because it concerns one of the most important problems of the day, but Wiggam does not by any means limit his observations to the effect of alcohol on the future of the race; due consideration is given to tuberculosis, for instance, and all other supposedly hereditary influences. The subject of war and its relation to the progress of civilization and to the development of character is very thoroughly treated in the second section of the book, dealing with "Modern Man, His World and His Problems", and much of what he has to say is applicable to conditions at this moment when Congress passes a peace treaty one day and an appropriation for battleships the next.

The topic of heredity versus environment is discussed at considerable length, and most convincing proof is tendered to show the predominating influence of the first mentioned factor. As to its influence upon eugenics, Wiggam says: "I have made this extended excursion into the heredity-environment question merely that the reader may feel considerable confidence that heredity makes a difference—indeed, a very great difference. If this be true and if mental and physical traits are both inherited, then it makes a great deal

of difference what kind of parents a man has, and what kind of people are born. A man cannot choose his parents, but his parents can choose each other; and in the choice of each other the pedigree which records the heredity of each matters a great deal. The chief point, however, from the standpoint of eugenics is that if it be true that some people have better heredity than others, then if economic conditions, social and intellectual ambitions, general ideals or wrongly directed birth control should lower the birth rate of those who have good heredity and leave undiminished the birth rate of those with mediocre or positively bad heredity, the average intelligence, physique and moral character of the race are going down. But if we can induce good, healthy families among good healthy people, and reduce the birth rate at the other end of the scale, the case for eugenics is largely won. To bring about this condition is the hope of eugenics."

Looking into the future, Wiggam seems to believe that the rising tide of degeneracy will be offset by a rising tide of biologic capacity which will be able to overcome any temporary difficulty and ultimately to secure for itself rightful and happy possession of the world, though he does ask whether, out of all the past experience, man has really learned anything. After reviewing the work of outstanding leaders and the most promising results of scientific investigations, he says: "All of this is the creation of the scientist, and yet men will not trust him in the management of their social and political affairs. Nor will they take to themselves the kind of life he lives, although the visible material products of that kind of life lie all about them and are in their very hands. With all these triumphs of science about them, they laugh at the idea that that same scientist could either manage their practical affairs better for them than they themselves can manage them, or that science can bring about a better spiritual life to live. For never in all history did men have so much to live for, never did they have so much to live in, never did they have so much to live with, and yet never did they seem to have so little to live by. We live in a world today where the very air is quivering with music and song, where every thought we think 'goes shivering to the stars'. Literally and actually, the time has come when 'deep calleth unto deep', when 'day unto day uttereth speech and night unto night showeth knowledge'. And yet, the real problem of the modern world is whether, with all this knowledge blazing before their eyes and quivering in the very air about them, men have really learned anything. With the winds of heaven laden with music and knowledge, never did men's lives seem so barren of true intellectual exaltation, nor their hearts so far from authentic spiritual anchorage. People who think they are educated—but who in reality have no idea what education is, because they have no idea what science is with its analytical spirit, its intellectual liberty combined with spiritual discipline, nor what scientific truth really means—are flocking by the millions to bearded mystics, enshrouded occultists, bob-haired and rouged clairvoyants, dark-room mediums, Oriental voodooists, applied psychologists, character analyists pseudo-psychoanalyzers, hocus-pocus humbuggers, and are trying to get God out of ouija boards. These people talk bravely with the phraseology of science, but they haven't the slightest idea what science really means. They use its instruments and its vocabulary, but they know not what it is all about."

One might assume from the above that Wiggam is not overenthusiastic about the outlook for "the next age of man". We have not intended to produce exactly that impression, but to convey the idea that his consideration of the subject is in a very serious vein and that his logical deductions from history of the race and knowledge of biologic and evolutionary processes, do not lead him to enthusiastic claims for rapid general development of what we call civilization. The book is deserving of careful reading and we fancy that practically every medical man will find it diverting, without getting too far away from his daily problems, and interesting for the whiling away of spare moments.

Esthetics

In the December (1928) Journal we reprinted in these columns a short article on "Music in Medicine". Among the responses thereto was a note of appreciation from M. Steinberg, Ph.D., M.D., of New York City, accompanied by a reprint of an article of his own, bearing upon the same subject, published in the Journal of Outdoor Life, December, 1924. With Dr. Steinberg's permission we are herewith republishing his paper for the benefit of all our members.

MEDICINE AND MUSIC

The human race is over 1,000,000 years old. Our brain required more than 500,000 years of development to enable us to assume and carry our bodies upright. In fact the pithecanthropus erectus, who probably was of no higher intelligence than the anthropoid ape

of today, lived 500,000 year ago. The steady and slow anatomic development of the brain changed also the configuration of the skull. Development of the latter has a tendency to diminish the facial portion in size and shape, and at the same time to increase volume of the brain case, especially the frontal part of it. Atavistic skulls with marked prominence of the bones of the face and rudimentary development of the cranium proper can be found in persons suffering from certain disturbances of the endocrine system. The evolution of human mentality runs parallel with development of brain plasma. The instincts of the primitive man correspond to the early development of the stem of the brain. This part of the cerebrum is less complicated in its morphologic and chemical structure, but it is more solid in construction, due partly to the character of its material and partly to the longer time that it has had to pass through all the period of phylogenetic evolution to further perfect its texture. The origin and development of the cortical portion of the brain forms the foundation for the emotional and, later on, the intellectual mind. The 7000 years of human civilization are dominated by the emotional part of our mind. It is only in the last few centuries that we find a slow but steady development of the intellectual way of thinking. The arts therefore, are the oldest and the more perfected products of our mentality. The achievements of the biology and the exact sciences are in comparison with the short time of their existence remarkable.

Both Arts Due to the Instinct of Self-Preservation

Medicine and music have been bound together since the first days of human history. Both were born as arts; due to the instinct of self-preservation, love and admiration for nature, and the desire to satisfy the innate sense of rhythm and beauty.

The instinct of self-preservation compels us to attempt to prevent diseases or to cure them by investigating the laws of nature and imitating and simplifying them as far as possible. The same instinct causes us to create sounds, words, language and music to develop our social feelings in the fight for existence. The pathway to the laws of nature leads through love and admiration. Love and admiration are unthinkable if there is not an inborn sense of rhythm and beauty. The rhythmic sense is an inherited tendency to do work or arrange play with certain regularity of motion. It is symmetry and harmony of movement; also symmetry and harmony of lines and colors as in sculpture and painting.

The importance of the rhythmic sense of our present day mentality is recognized by the leading men in science and art. The consciousness of rhythm is formed through cooperation of the labyrinth of the internal ear, cerebellum, spinal cord and medulla oblongata with the cortical portion of the brain. They control the posture of the body and its movements. Children and young folks are at the present time instructed in physical exercises and plastic dancing in order to develop the sense of rhythmic bodily movements, so as to place the body under more strict control of the brain. The esthetic part of the rhythmic sense is cultivated by the selection of artistic dances, beautiful surroundings, simple but tasteful costumes copied mostly from the old Greek fashions, and music appropriate to the style and type of dance. All this inspires the pupil, plunges him into the mystic beauties of his art and transforms the latter to an art of religion.

Musical Rhythm the Essence of All Arts

Musical rhythm is not only the foundation of music but is also the essence of all other arts. We find it in sculpture, painting, poetry and dancing. Each art represents the musical rhythm in a different way according to the character of the art. Sculpture is, therefore, nothing but frozen music; painting, music in colors; poetry, music in words; and dancing, music of muscular tension and relaxation. Even the sciences, that are supposed to be products of our intellectual mind, are not free from rhythm; they are still in their fundamental character arts, and are influenced and guided by the emotions. The rhythmic pulsation of the living brain and the rhythmic chemical processes of assimilation and dissimilation, that occur every moment in the brain cells, are perhaps responsible for this character of our thinking and feeling. The ancient learned men used the rhythmic language of poetry in their scientific writings and many of our modern scientists look for and find in the arts inspiration for their creative work. The intellectual mind is an art in itself; it is silent music known only to those few of us who are fortunate enough to possess it. The greatness of the mind is that its ideas can only to a certain degree be embodied in the form of words or sounds, or carved in stones; the greater part of them are carried in form of immaterial thoughts.

The human body is a symmetrically built organism. The heart beat, respiration, action of the skeletal muscles, joints and bones, chemical processes and the mechanical workings of the digestive organs, are under control of well systematized and interdependent

regular action, dictated by the rhythmic sense of the brain. Also the pathologic metabolism in the body cell manifests itself in a rhythmic way. The classical temperature curves in typhoid fever, pneumonia and malaria, the periodicity in reappearance of the same clinical symptoms in the course of certain mental diseases, the symmetry and harmony in distribution of metastatic growths in our organism in malignancy—are all founded on the same principle of rhythmicity. Psychogenetically, symmetry and harmony developed the sense of rhythm, and rhythm the sense of beauty. The birth of Venus in the depth of the sea and her arising to the surface as goddess of beauty after passing through the rhythmic waves of the waters, is a poetic attempt of Greek mythology to analyze the evolution of the beauty sense from the eve of primitive conscious life to the mentality of civilized man.

Medicine and music originate from the same source; both are the "idealization of the natural language of passion," and in spite of the difference in their character and development, they are related to each other and exercise a mutual influence. Advances in the knowldge of anatomy and physiology of the muscles, bones and joints made it possible to create a most perfect technic in playing on stringed instruments. The ideal vocal training of opera stars is based upon the principles of anatomy and physiology of the respiratory organs. The brass and wood instrument artists have their training based upon these same principles. The improvement of certain musical instruments is also due to a better knowledge of the construction of the human windpipe and the internal parts of the ear.

The Therapeutic Value of Music

The steady development in the last 3 centuries of natural sciences, including psychology, as well as the increased interest in sociology and economics, helped to build up classical music characterized by harmony of emotions and intellect. Thus, on scientific principles music has advanced and is now able, because of its universal character, to control and improve the entire personality of the man. Hence its educational importance for the healthy as well as its medicinal value for the abnormal is as yet without question. The educational character of music consists in building up a powerful yet sympathetic character and in enlarging the mental horizon of the person. The therapeutic value of music on the mental and physical system is parallel to that of drugs. We have in music, as in drugs, "tonics and depressants". Musical pieces of an exhilarating character dissipate mental depression and cause us to feel cheerful and hopeful by mobilizing every bit of mental energy. Who does not know the example of tired soldiers increasing their footsteps and forgetting fatigue and privation under the sound of a gay march. The same kind of music served to a restless and excitable person will produce an opposite effect. For such individuals soft tuned and soothing music is indicated.

Not only the mind but also the respiration, blood circulation, nutrition, digestion and elimination can be influenced by music, as successful experiments made in this line in institutions for experimental psychology prove. Cheerful music increases the frequency of pulse and respiration, blood pressure becomes higher, and the digestive and eliminative power of the intestinal organs is made more efficient. Sad music produces a contrary effect. Very interesting and yet not perfectly satisfactorily solved is the question of relation between music, color, smell and taste. It is known that every musical sound can be associated in our minds with a corresponding sensation of a specific color, smell and taste. How far these sensations induced through music influence our body and mind is still a question of study.

The therapeutic value of music on the mind and body was well known to the ancient Assyrians, Babylonians, Egyptians, Greeks, Hebrews and Romans. The oldest discovered Egyptian medical papyri testify that physicians at that time treated different diseases with music, very often in combination with drugs. King Saul's melancholy was treated by David playing on his harp. Under the reign of Hadrian, Roman physicians applied flute music to cure sciatica. Music was also a popular remedy in mediæval Italy for snake bites, and it was profusely applied as a life saving medicine in combination with hysteric dances. One of the frequent methods of treating disease, by the Chinese, is that of applying a rhythmic vibratory massage on the affected portion of the body. The mediæval Arabian physicians in Spain cultivated music systematically as an efficient remedy for curing diseases, by employing musicians in their hospitals. Even today it is customary among primitive peoples to use queer sounding music for the purpose of expelling evil spirits from the body of a sick person; their interpretation of the origin of disease is somewhat different from ours, although the therapeutic effect might be just as good. The magic power of music can be demonstrated by the fact that it impresses the most ferocious creatures of lower intelligence. An Indian fakir, for ex-

ample, is able to charm with his simple flute the dreadful cobra.

The mild forms of mental diseases characterized by impairment of the emotional life are favorably influenced by properly selected musical pieces appropriate to the mentality of the patient. In modern operating rooms music is applied either as a stimulating factor for nervous and rundown patients during the performance of an operation under local anesthesia, or as a "slumber medicine" before the operation to save the patient unnecessary excitement.

"The sense of music is innate in every human being. The beginnings of music are to be found in the satisfied gurglings and temperamental screamings of the infant in arms, and no composer, even of the greatest genius, did he wish to express such simple emotional reactions could do so otherwise than through employment of those elements of pitch, rhythm and dynamics which appear at the very dawnings of human consciousness and which remain unchanged in the most elaborate of musical compositions. . . . The need for self-expression is instinctive in all human beings and in so far must be recognized as the most indispensable vehicle for self-expression; so may it be said that every one is a born artist. Owing to lack of opportunity and specialized talent this instinctive desire is in most cases thwarted or stifled. . . . " (Harold Bauer. The Growth of Music in America. Musical Courier, June 7, 1923, p. 10.)

Music, therefore, controls the emotional life of a person. As the mentality of the human race under present day civilization contains more emotional than intellectual components, the educational and therapeutic value of good music cannot be denied. The higher type of music exercises invariably an ennobling influence upon the mind by freeing us from the monotonous reality of every-day life and, in the meantime, exerts valuable medicinal influence upon the body.

Medical Economics

THE PHYSICIAN'S INCOME TAX—1929

(Reprinted from Jour. A. M. A., 92:78, Jan. 5, 1929.)

The taxpayer who is required to make a return must do so on or before March 15, unless an extension of time for filing the return has been granted. For cause shown, the collector of internal revenue for the district in which the taxpayer files his return may grant such an extension, on application filed with him by the taxpayer. This application must contain a full recital of the causes for the delay. Failure to make a return may subject the taxpayer to a penalty of 25% of the amount of the tax due.

The normal rate of tax on individual citizens or residents of the United States, under the Revenue Act of 1928, is 1.5% on the first $4000 of net income in excess of the exemptions and credits, 3% on the next $4000, and 5% on the remainder.

Who Must File Returns

1. Returns must be filed by every person having a *gross* income of $5000 or more, regardless of the amount of his net income or his marital status. If the aggregate gross income of husband and wife, living together, was $5000 or more, they must file a joint return or separate returns, regardless of the amounts of their joint or individual net incomes.

2. If *gross* income was less than $5000, returns must be filed (a) by every unmarried person, and by every person married but not living with husband or wife, whose *net* income was $1500 or more, and (b) by every married person, living with husband or wife, whose *net* income was $3500 or more. If the aggregate net income of husband and wife, living together, was $3500 or more, each may make a return or both unite in a joint return.

If the marital status of a taxpayer changed during the tax year, the amount of income necessary to bring him within the class required to make returns should be ascertained by inquiry of the local collector of internal revenue.

As a matter of courtesy only, blanks for returns are sent to taxpayers by the collectors of internal revenue, without request. Failure to receive a blank does not excuse any one from making a return; the taxpayer should obtain one from the local collector of internal revenue.

The following discussion covers matters relating specifically to the physician. Full information concerning questions of general interest may be obtained from the official return blank or from the collectors of internal revenue.

Gross and Net Incomes: What They Are

Gross Income.—A physician's gross income is the total amount of money received by him during the year from professional work, regardless of the time when the services were renderd for which the money was paid, plus such money as he has received as profits from investments and speculation, and as compensation and profits from other sources.

Net Income. — Certain professional expenses and the expenses of carrying on any enterprise in which the physician may be engaged for gain may be subtracted as "deductions" from the gross income to determine the net income on which the tax is to be paid. An "exemption" is allowed, the amount depending on the taxpayer's marital status during the tax year, as stated before. These matters are fully covered in the instructions on the tax return blanks.

Earned Income.—In view of the credit of 25% allowed on *earned* net income, the physician should state accurately the amount of such income as distinguished from his receipts from other sources. *Earned* income means professional fees, salaries and wages received as compensation for personal services rendered. From this, in the computation of the tax, must be subtracted certain "earned income deductions." The difference is the "earned net income."

The first $5000 of an individual's net income from all sources may be claimed, without proof, to be *earned* net income, whether it was or was not in face *earned* within the meaning set forth in the preceding paragraph Net income in excess of $5000 may be claimed as *earned* if it in fact comes within that category. However, a taxpayer may not claim, as *earned*, net incomes in excess of $30,000.

The conditions relating to the computation of the tax on earned income are too elaborate to be stated here. In case of doubt, physicians should consult collectors of internal revenue.

Deductions for Professional Expenses

A physician is entitled to deduct all current expenses necessary in carrying on his practice. The following statement shows what such deductible expenses are and how they are to be computed:

Office Rent.—Office rent is deductible. If a physician rents an office for professional purposes alone, the entire rent may be deducted. If he rents a building or apartment for use as a residence as well as for office purposes, he may deduct a part of the rental fairly proportionate to the amount of space used for professional purposes. If the physician occasionally sees a patient in his dwelling house or apartment, he may not, however, deduct any part of the rent of such house or apartment as professional expense; to entitle him to such a deduction he must have an office there, with regular office hours. If a physician owns the building in which his office is located, he cannot charge himself with "rent" and deduct the amount so charged.

Office Maintenance.—Expenditures for office maintenance, as for heating, lighting, telephone service and the service of attendants, are deductible.

Supplies.—Payments for supplies for professional use are deductible. Supplies may be fairly described as articles consumed in the using; for instance, dressings, clinical thermometers, drugs and chemicals. Professional journals may be classified as supplies, and the subscription price deducted. Amount currently expended for books, furniture and professional instruments and equipment, "the useful life of which is short", may be deducted; but if such articles have a more or less permanent value, their purchase price is a capital expenditure and is not deductible.

Equipment.—Equipment comprises property of more or less permanent value. It may ultimately be used up, deteriorate or become obsolete, but it is not in the ordinary sense of the word "consumed in the using"; rather, it wears out.

Payments for equipment or nonexpendable property for professional use cannot be deducted. As property of this class may be named automobiles, office furniture, medical, surgical and laboratory equipment of permanent value, and instruments and appliances constituting a part of the physician's professional outfit and to be used over a considerable period of time. Books of more or less permanent value are regarded as equipment, and the purchase is therefore not deductible.

Although payments for equipment or nonexpendable articles cannot be deducted, yet from year to year there may be charged off against them reasonable amounts as depreciation. The amounts so charged off should be sufficient only to cover the lessened value of such property through obsolescence, ordinary wear and tear, or accidental injury. If improvement to offset obsolescence and wear and tear or injury has been made, and deduction for the cost claimed elsewhere in the return, claim should not be made for depreciation.

A hard and fast rule cannot be laid down as to the amount deductible each year as depreciation. Everything depends on the nature and extent of the property and on the use to which it is put. Five per cent a year has been suggested as a fair amount for depreciation on an ordinary medical library. Depreciation on an automobile would obviously be much greater. The proper allowance for depreciation of any property is that amount which should be set aside for the tax year in accordance with a reasonably consistent plan,

not necessarily as a uniform rate, whereby the aggregate of the amounts so set aside, plus the salvage value, will at the end of the useful life of the property in the business equal the purchase price of the property or, if purchased before March, 1913, its estimated value as of that date or its original cost, whichever may be the greater. The physician must in good faith use his best judgment and make such allowance for depreciation as the facts justify. Physicians who, from year to year, claim deductions for depreciation on nonexpendable property will do well to make annual inventories, as of January 1, each year.

Medical Dues.—Dues paid to societies of a strictly professional character are deductible. Dues paid to social organizations, even though their membership is limited to physicians, are personal expenses and not deductible.

Postgraduate Study.—The Commissioner of Internal Revenue holds that expense of postgraduate study is not deductible.

Traveling Expenses.—Traveling expenses necessary for professional visits to patients are deductible. The board of tax appeals has held that traveling expenses incurred in attending medical meetings are deductible. Such expenses include only those necessarily incurred in attendance at a professional meeting for a professional purpose. The taxpayer is advised to make no claim for the deduction of such expenses unless he is prepared to establish the fact of expenditure. In the future accurate itemized records should be kept of such expenses and substantiating evidence, such as Pullman and railroad receipts, hotel bills and so on, should be carefully preserved.

Automobiles

Payment for an automobile is a payment for permanent equipment, and is not deductible. The cost of operation and repair, and loss through depreciation, are deductible. The cost of operation and repair includes the cost of gasoline, oil, tires, insurance, repairs, garage rental (when the garage is not owned by the physician), chauffeurs' wages, etc.

Deductible loss through depreciation is the actual diminution in value resulting from obsolescence and use, and from accidental injury against which the physician is not insured. If depreciation is computed on the basis of the average loss during a series of years, the series must extend over the entire estimated life of the car, not merely over the period in which the car is in the possession of the present taxpayer.

If the automobile is used for professional and also for personal purposes—as when used by the physician for recreation, or used by his family—only so much of the expense as arises out of the use for professional purposes may be deducted. A physician doing an exclusive office practice and using his car merely to go to and from his office cannot deduct depreciation or operating expenses; he is regarded as using his car for his personal convenience and not as a means of gaining a livelihood.

What has been said with respect to automobiles applies with equal force to horses and vehicles and the equipment incident to their use.

Miscellaneous

Laboratory Expenses.—The deductibility of the expenses of establishing and maintaining laboratories is determined by the same principles that determine the deductibility of other corresponding professional expenses. Laboratory rental and the expenses of laboratory equipment and supplies and of laboratory assistants are deductible when under corresponding circumstances they would be deductible if they related to a physician's office.

Losses by Fire, etc.—Loss of and damage to a physician's equipment by fire, theft or other cause, not compensated by insurance or otherwise recoverable, may be computed as a business expense, and is deductible, provided evidence of such loss or damage can be produced. Such loss or damage is deductible, however, only to the extent it has not been made good by repair and the cost of repair claimed as a deduction.

Insurance Premiums.—Premiums paid for insurance against professional losses are deductible. This includes insurance against damages for alleged malpractice, against liability for injuries by a physician's automobile while in use for professional purposes, and against loss from theft of professional equipment, and damage to or loss of professional equipment by fire or otherwise. Under professional equipment is to be included any automobile belonging to the physician and used for strictly professional purposes.

Expense in Defending Malpractice Suits.—Expenses incurred in the defense of a suit for malpractice are deductible as business expense. Expenses incurred in the defense of a criminal action, however, are not deductible.

Sale of Spectacles.—Oculists who furnish spectacles, etc., may charge as income money received from such sales and deduct as an expense the cost of the article sold. Entries on the physician's account books should in such cases show charges for services separate and apart from charges for spectacles, etc.

Special Article

CONFERENCE OF COUNTY SOCIETY SECRETARIES AND REPORTERS

(Proceedings reported by Miss Margaret M. Mahoney)

The Annual Conference of Secretaries and Reporters of the Component County Medical Societies of New Jersey was called to order by Dr. Ephraim R. Mulford, President of the Medical Society of New Jersey, in the Princeton Room of the Stacy-Trent Hotel, Trenton, N. J., at 11:45 a. m., January 26, 1929.

The secretaries and reporters present were: Drs. Benjamin Borow, B. Franklin Buzby, Elton S. Corson, Marcus A. Curry, Henry B. Diverty, Roscius I. Downs, Lancelot Ely, A. Dunbar Hutchinson, John S. Irvin, George H. Lathrope, George W. Lawrence, Earl C. Lyon, Frank W. Pinneo, R. E. Schall, Russell A. Shirrefs, Spencer T. Snedecor, George T. Tracy, E. Le Roy Wood, Alfred Woodhouse. Drs. J. B. Morrison, Recording Secretary, and Henry O. Reik, Editor and Executive Secretary, of the Medical Society of New Jersey, were also in attendance. Dr. Hollinshed, of Gloucester County, had expected to be present but sent telegram announcing that he had been unavoidably detained.

The counties of Burlington, Camden, Cumberland, Essex, Mercer, Morris, Ocean and Somerset were represented by secretaries and reporters both. Bergen was represented by its secretary only. Atlantic, Gloucester and Union were represented by reporters only. Cape May, Hudson, Hunterdon, Middlesex, Monmouth, Passaic, Salem, Sussex and Warren sent no representatives.

Dr. Mulford: The meeting of secretaries and reporters will please come to order.

You will notice in the announcement that you have before you, that the annual luncheon gatherings, sponsored by my most worthy predecessors, Drs. Donohoe, Green and Conaway, were most delightful and encouraging affairs. The state society trustees saw Mulford coming along and they said: "He can't afford this; we are going to lift the burden from his shoulders; we'll put it over for him". So, today, we have gathered together for the purpose of perpetuating annual conferences under the auspices of the state society.

In the olden days, the presidents of these county organizations were the men who were supposed to be the leading lights in the county. They were to take care of the programs and guide the social activities and the welfare of all the men in the county. But presidents come and go. Each year a new man comes in, and all this work has come to devolve upon the secretaries. The secretary holds his office so long as he will or so long as he lives. Consequently, the secretaries of these county organizations have grown to be the "powers that be" and it has almost gotten to the point where every county organization is as strong as its secretary. The state society feels grateful to these men who have aided us, year after year, so faithfully and well in our councils and in putting over programs for all our activities. But the work has grown so that we feel an occasional conference will be helpful to us.

Our eminent secretaries, Drs. Morrison and Reik, will present papers which we hope will be generously discussed. I take pleasure in presenting to you Dr. Henry O. Reik; the subject of whose paper is just before you on the program.

DEVELOPMENT AND CORRELATION OF COUNTY MEDICAL SOCIETY WORK

Henry O. Reik, M.D., F.A.C.S.,
Atlantic City, N. J.

In arranging for this meeting, the Medical Society of New Jersey is following a plan that has been in vogue for some years in neighboring states and which is being adopted rapidly in other parts of the country. We had the privilege of attending a similar meeting of the secretaries of the county medical societies of Pennsylvania, held at Harrisburg in December last, the Twenty-third Annual Meeting of that group, and were much impressed by the disclosure of possibilities for increasing the effective working power of county and state organizations. We have heard or read also of beneficial results accruing in other states from periodic conferences among those responsible for the conduct of the component branches of state medical societies. Personal experience with the independent and variable working of our own components, especially at moments when uniformity of action would have been highly beneficial to everybody concerned, led us a good while ago to wish for some plan whereby consultation and determination of policy might be arrived at so that risk of disturbing harmony might be reduced to a minimum or avoided entirely.

Success of the luncheon conferences so generously provided for by Drs. Donohoe, Green and Conaway has culminated in the decision of the Board of Trustees, in response to the

request of Dr. Morrison, to authorize the holding of a special meeting at which you may have sufficient time to deliberate over some of the problems connected with your official tasks. There are many questions intimately associated with the conduct of county societies; many questions of vital import to the existence and efficient functioning of such organizations; many that concern the relationship of county societies to each other and to the state society; many of distinctive concern to the individual physicians who constitute your county organization membership; about which you may wish to confer. If the annual conference plan proves adaptable here, it may well be that you will wish to take over completely the control of such meetings, arranging your own programs and conducting your meetings in your own way, but, for the purpose of inaugurating the general scheme and giving it a definite start, it was deemed wise to have the President and Secretary of the State Society call this congress, and to direct your attention specifically to a few of the questions that need your immediate consideration. Hence, the call and the program for today's meeting.

Our plan of organization in New Jersey differs from that in most of the states, in that our county societies have both secretaries and reporters; a plan, I may say in passing, which is working admirably here and which has attracted favorable comment among the officials of a number of other state societies. In the program today we shall present some topics of special interest to each of these officers. Naturally, it will not be possible to discuss, or even to list, all these questions that might profitably be considered at this meeting, so we shall limit our presentation to problems that are most pressing here in New Jersey or that have been suggested or considered recently in other states and will in time require your attention.

Secretaries. At the Annual Conference of Secretaries of Constituent State Medical Associations, held in Chicago last November, the statement was made that these conferences have served as an effective clearing house for matters of general interest; have afforded opportunity for officers of many different state societies and from all parts of the nation, but all engaged in the performance of similar functions, to become acquainted and to compare notes; and have rendered a far-reaching service to organized medicine through the fact that each secretary has returned to his own state society imbued with the spirit of cooperation and supplied with new thoughts and new methods of procedure for the benefit of his local organization. The items of that summary should be quite as applicable to a state conference of the officers of constituent county societies. At that meeting, as well as at sessions held in previous years, the statement was repeatedly made that it can be said, in effect, that the *secretary* of a society *is* the society; in other words, as we have on more than one occasion remarked to some of you, a county medical society is apt to be as good as, neither better nor worse than, its secretary. The presidents of state societies and the presidents of county societies are recognized as important personages and are welcome to these national and state conferences but they are not especially invited because of the impression that mostly they are figureheads, chosen to be honored or to honor the organization, and always they are but temporarily associated in a prominent manner with the organization work. A good secretary, on the other hand, is apt to become something of a fixture, his efficiency and his detailed knowledge of organization work leading to his reelection year after year.

Upon you gentlemen then, the secretaries of county societies, rest the burden and the dependence of organized medicine; for a second theme that runs through the entire symphony of our organization, whether it be played in county, state, or nation, is the statement that "the county society is the basic unit in organized medicine." Let us recognize the full import of this fact, that the county medical society is the foundation stone of the temple of organized medicine—which we think of as the American Medical Association; and, if you please, we may say that the secretaries are the keystones which bind together the separate structures out of which the temple has grown. Upon you rests a great burden of responsibility. It is you who come into personal contact with the individuals comprising the membership of county, state and national bodies; it is you upon whom each organization depends very largely for collection of opinions and transmission through channels of the wishes of members of the profession; it is you through whom the national and state groups must speak when they wish to broadcast a decision, to disseminate information, or to take a plebescite. We emphasize these points at this moment not to flatter you but to bring home to you a true appreciation of your importance, and to remind you that selection for such distinctive honor carries with it a compensating sense of responsibility to your constituents.

Reporters. To those of you who are serving as reporters, may we say that your privileges, opportunities and responsibilities are

only a shade less magnificent. You, also, have been chosen for office because of supposed ability to represent your confréres in the presentation of their work and their opinions to the profession through its own medium of publication. It behooves each of you to do full justice to your associates by preparing and submitting for publication an accurate record of all meetings; to see that your district reports compare favorably with those from other counties; to seek from sources outside the meeting room information regarding local events that concern your members and to report such matters to your society and to the Journal. From the days of Hippocrates to the present moment, the "scribe" has always held a position of honor and trust; and honor and trust invariably carry along coincident responsibility. As was said by one of the speakers at Chicago, "an inefficient secretary or a negative reporter is ruinous to a county medical society." Of your special work we shall have something more to say in a few minutes.

Organization. If, now, we are going to consider the development and promotion of organization work, it would seem wise to ask first whether we have an effective organization with which to work. True, this is the oldest state medical society in the United States; and several of our county societies have celebrated their centenary of existence. Of all that, we are justly proud. But the very fact that we are so old raises the questions whether all the structural parts of this machine are in good working order, and whether when called upon to function "she hits on all 8". A bit of creaking now and then suggests the advisability of a careful overhauling.

Membership. First, let each Secretary ask himself whether his county society is fully organized; whether it has enrolled every eligible member in the community? The A. M. A. Directory lists approximately 3600 licensed physicians in New Jersey, but the New Jersey State Medical Society Directory lists a membership of only 2400; what is the matter with the other 1200 practitioners? Are they all unworthy? Has a proper effort been made to enlist all those who are eligible and worthy of membership? We realize full well that an *eligible* is not necessarily a *desirable* member, and we understand that some excellent practitioners are simply not "joiners". We raise these questions not in a sense of criticism but with a view to determining if our organization in each district has attained the limit of its possibilities in point of numbers.

From the scientific and professional points of view, the strength of a society does not depend upon mere numbers, but in some other respects the number of members constituting an organization does become a matter of importance. All the titles of the most distinguished member of your society will not make as great an impression upon a local Freeholder or a State Senator as will the statement that he represents 50 or 2400 votes. Furthermore, when legislation is pending and the organization claims to represent the medical profession of the county or state, it is disturbing to have a legislator say that some of the most prominent physicians of his district are not represented by the society and possibly are opposed to its requests. We should make every effort to strengthen the organization in each and every county by bringing the enrolled membership up to the limit of possibility.

Frequency of Meetings. Another problem that comes to mind bears upon the frequency of county society meetings. It has been very gratifying to note that so many of our county societies have during the past 3 years increased the number of meetings; some from 2 to 4, others from 4 to 8 meetings during the year. We believe that most of the societies have had this matter under consideration and that some are even now contemplating changes in their constitutions and by-laws to effect like results, and we would respectfully urge those few counties that are still holding to the two-meeting plan to proceed as rapidly as possible toward an increase in the number of their meetings. In every single instance where such change has been made, the county society has markedly benefited, and the improvement has been of such nature as to lead one to conclude that the more frequently a society meets, within certain recognized limitations, the more successful it will be. From the organizational point of view, a society that holds only annual and semi-annual meetings is of little value because it cannot possibly keep step with moving events and cannot be relied upon to function when its services are most needed. Such infrequent meetings do not even afford members the chance to maintain acquaintance with one another, let alone form a basis of fraternal partnership in an active business.

If, therefore, your county society is scheduled to hold less than 4 meetings a year, we recommend that you take steps immediately to bring it up to that standard, at least; there is no county in the state whose society cannot profitably adopt that proposition. If your numbers and situation justify it, provide for 6 to 8 meetings per annum, for, whenever possible, county societies should meet monthly

at least during the period between October and June, both months included.

Internal Relationships. The next most important problem concerns the relationship of county societies to each other and to the organization as a whole, as they are combined in the state society. It is scarcely conceivable that a more democratic organization than ours can be devised. Adequate provision is made for every individual member to have a voice in the conduct of affairs. Aside from the part that individuals may play in the local component county society, every member is invited to attend the annual convention of the state society, to participate freely in the discussion of scientific and professional questions, and to submit his views and opinions to the House of Delegates through his chosen delegate. To facilitate transaction of business and to provide for equitable representation when matters of import to the entire profession are being considered, it is necessary to have a separate House of Delegates at state and national meetings; but every member of every county society has ample opportunity to express himself in the choice of his own delegated representative and to present his views upon any question that may have to be decided. The greatest drawback to that system is that so many members will not keep themselves informed as to the status of pending questions or the action taken by the society in its annual assemblage. Reports of proceedings, submitted to them through the official publication, often remain unread or pass unheeded. Not infrequently, a component society fails to carry through an action that was decided upon by the general body. Worse than that, it has happened that a component society has refused to abide by a decision taken by the state society. If the state organization is to be effective it must be able to use the full strength of its component parts. You will all agree that a chain is only as strong as its weakest link; and if that be true, a county society that does not function or that cannot be relied upon certainly weakens a state organization. Furthermore, I think you will agree that a team will not make much progress while the lead horse is cutting capers or the wheel horse is sitting back on his haunches; and that may be interpreted to mean that the state society will not get far in the solution of a given problem if the county societies move in opposite directions after the command to start has been given. It is all right to argue questions, and every county society and every individual member must have the right to express his opinion and to register a vote upon debatable questions, but after the vote has been taken and the result announced it is the duty of everybody to support that majority decision; continued opposition by a defeated minority is indefensible.

It is highly important for secretaries of county societies to remember that when communications are received from state society officers, and such communications call for action by the component group, that such questions should be acted upon promptly and that final disposition of such questions should be adhered to by every branch of the organization. Secretaries can do a great deal to establish an *esprit de corps* and to main harmony all along the line.

Welfare Committee. The Welfare Committee of our state society is, as you know, a combination of several formerly existing committees and having particularly the duties of a legislative and an executive committee. Each county is represented on the Welfare Committee by at least one member. That member is supposed to represent the county society at meetings of the Welfare Committee and to carry back to his own organization reports of the committee proceedings; he is in that respect a *liaison* officer. Not infrequently occasion arises, however, for the officers of the state society and the Chairman of the Welfare Committee to have direct communication with the county society, through the Executive Secretary on the one side and the county society secretary on the other, and this makes it important that the last mentioned officer shall keep in touch with the local member or members of the Welfare Committee so that in any emergency all can work together and with promptitude. A little closer coöperation than has been apparent in some districts will help materially at critical moments to promote organizational interests.

Report of Proceedings. With so much in reference to the set-up of machinery, let us, before discussing special functions of the machine, say a few words to the reporters. Your Journal gives more space to the publication of county society reports than does any other medical journal in the United States. On the whole, the subject matter of those reports is noteworthy for its good quality. We have often stated that the scientific matter published in that section of your Journal is quite as good as that usually presented in the Original Articles section, and a goodly number of our readers have endorsed that opinion. We also find occasion for pride in the fact that we publish now during the year a report of practically every county society meeting held in the state and that we do it in each instance within a month of the date of meeting. If you could have the opportunity

of comparing, as the Editor does, your Journal with those of other states, you would better appreciate the full import of those statements. But, today, it is my intention to call your attention to your *frailties* rather than your *virtues*.

First, we wonder if any of you realize how much extra labor and extra expense you entail upon the Editor's office by failure to send in your reports at the proper time and in proper shape for publication? You all know that reports should be in the Editor's hand before the twentieth of the month, for inclusion in the next month's Journal. Yet, month after month, we have to send you a letter on the twenty-first, reminding you of that fact; and to some of you we must send a telegram on the twenty-seventh, requesting immediate submission of that report. This very month of January affords a fair example: of the 21 county societies, 15 were scheduled to hold meetings; on January 20, we had received only 6 reports; 6 others, where meetings had been held prior to the tenth, were still not reported; 1, meeting on the fifteenth, was received on the twenty-first; 2 only out of the 9 belated reports were excusable because the meetings were to take place later than the twentieth of the month. Every reporter knows that it is easier to make up his report immediately after the meeting than it will be at any later date. More than that, he knows that he can present a much better report if he does it *immediately* than he can possibly do several days later; for the greater the distance from the time of its occurrence the less he will remember of what happened at the meeting, and the more difficult it will be to read his cold notes. Let me once more beg of you that you prepare and send in your reports the very next day after any meeting. By so doing, you save the state society trouble and money and will do greater justice to your own society group.

Next, we ask you to observe some uniformity in the preparation of reports. Save as to spelling, we would not want this product standardized. We wish to preserve your respective styles so far as that may be consistent with good English, and you may have noticed that an effort has been made to avoid unnecessary editing of your reports. We like variety and we believe that our readers do not want these reports revised to the extent that they will appear to have been written all by one and the same person. However, compliance with that plan means that some of you should exhibit a little more care in the construction of your reports. And we do not think we are asking anything unreasonable in requiring that hereafter you shall submit typewritten reports and that the writing shall be double-spaced. Without danger of bringing down an accusation of being hypercritical, we may say that some of you could not win a prize for penmanship.

Having said that our county society reports are "on the whole" of good quality, let us now call your attention to the fact that there is a tremendous space between the best and the poorest of those reports. Comparisons might appear invidious, so we hesitate to specify by name which are the best reports, but that can scarcely be necessary here for each one of you must know whether or not he is sending in a respectable report. If you are in doubt as to whether you are classed among the good reporters, just glance over the county society reports as published in the 12 monthly issues of the Journal for 1928 and contrast your own reports with those from the other counties. Incidentally, note the unevenness of your own reporting. Note that some reporters make it possible for any reader to ascertain what actually transpired at a given meeting; while other reporters relate little more than the fact that a meeting was held. Some of you send me newspaper clippings in lieu of a proper report; a method which, generally speaking, is not a good one because the local paper publishes only the social aspects of the meeting and little or nothing concerning the scientific matter. We think you should make it a matter of pride, in yourself and in your county society, to have a good, readable, accurate report of each meeting appear in the Journal. If *we* were reporting we should want to make *our* county compare favorably with the others and, if possible, excel them all.

Now, as a guide for the preparation of your reports, may we offer a few simple rules: (1) Have report typewritten, with lines double-spaced; (2) follow the general form of construction given to reports that have been appearing in the Journal; (3) for English spelling use the Standard Dictionary as authority, and remember that so-called *simplified spelling does not go* with your Journal; (4) for medical words and terminology use Dorland's Dictionary; (5) do not employ abbreviations, for that is a prerogative that must be reserved to the Editor; (6) when a paper has been read which you think is deserving of wider publicity, try to secure it for publication in full in the Journal; (7) last, but by no means least in importance, please supply us promptly with notice of death of any member. On this last point, we wish to lay considerable emphasis for it is

an exceptional occurrence to receive a death notice from any county society officer.

You may all think that I have taken up considerable time with the details of organization and the technicality of recording your work. It is true, I have, but from the "lighthouse" we can see some of the things that cause wrecks or interfere with the smooth navigation of the ship of state, and believe that calling your attention to such matters may not be time entirely wasted even for you. Now, let us turn to some of the specific functions of county medical societies.

In the January issue of your Journal, 8½ pages, more than 9000 words, are devoted to reporting the last Tristate Medical Conference, which dealt with this subject of county society work. Dr. Joseph S. Lawrence, of Albany, N. Y., presented a "Review of the County Medical Society's Opportunities" very much better than I could hope to do, and I trust you have read his paper and the very interesting discussion that is published therewith. Although the subject is not exhausted, and it is already planned for the next conference to devote an entire session to the problems concerning the county societies, everyone of you will find a sufficient number of ideas in that report to keep you busy for quite a while. Lest some of you have not read the January Journal (and the Editor saves himself embarrassment by not inquiring how many of you have done so) let us say that Dr. Lawrence presented a classification of county society opportunities under 4 headings: scientific advancement, social advantages, public relations and internal relations.

Scientfic Work. Under this heading the principal item for consideration was the program to be arranged for meetings. Our own observation is that most of you seem to have little trouble on that score. Some of you have been more successful than others and some have had to try various expedients to increase attendance at meetings. It is a subject that can lead to endless discussion, but it is one that can be profitably discussed here today and we hope that those of you who feel the need of help will ask questions and that those who have been crowned with success or have new ideas to offer will speak for the benefit of your brothers.

Social Advantages. This subdivision of the topic is another that has apparently been solved in New Jersey. The custom almost universal throughout this state, of gathering at the festive board just before or just after the scientific and business sessions, seems to work admirably. The average of attendance at county society meetings is not as high as we might wish but it is as great as, if not greater than, that governing in other states. We can think of only 2 counties in which the average attendance is abnormally low and in both instances we believe that the fault rests largely with the officers of the county society; that opinion having been arrived at after noting that in both counties there has been neglect to provide enticing programs. We have heard it suggested by men of ripe experience and high in the councils of medical organization that excellent meetings can be held without previous preparation of a fixed program. We admit the truth of that generalization and acknowledge that a secretary can occasionally "get away with it", but experience proves that the trick cannot be pulled off frequently in any single community unless very exceptional circumstances prevail. The men who recommend that plan have generally been too modest to analyze their own success. We pointed out to one of them at Chicago that any society which includes in its membership a William Allen Pusey or a Frank Billings has a *living program* that is always dependable. We recall a meeting of that kind in one of the smaller counties of New Jersey which was most entertaining, which was in fact one of the most profitable scientific meetings we have attended in the state and it gave us a very high regard for the ability and the attainments of that society, but we have witnessed several other meetings in that county since where only a corporal's guard responded to the call and we then came to wonder why anybody should travel very far in response to a call which merely stated that a meeting would be held at a certain time and place. We think it is well demonstrated that a scheduled meeting call combining social features with an attractive scientific program is best adapted to the procurement of satisfactory results.

Woman's Auxiliary. In this connection permit us to direct attention to the recently organized auxiliaries and to ask you secretaries to assist in the further development of that very promising adjunct to our organization. When the question of forming a Woman's Auxiliary was first broached we were as skeptical as any of you could have been, but a little study devoted to the subject and some experience with the working of the plan here and in other states has convinced us that we have in the auxiliary a valuable aid if we properly avail ourselves of its possibilities. There is no doubt about an increase of attendance having resulted in several counties through the fact that the auxiliary holds its meetings at the same time and place;

and that was further proved at the last convention of the state society. There are many things the women can do for organized medicine which we ourselves cannot put over. There are a few things in which we may seriously need their help. For instance, in the matter of public health legislation, we shall need all the assistance we can get to prevent passage of obnoxious bills at Trenton and we should not overlook the fact that women are playing an increasingly important rôle in politics. We ask you, therefore, to encourage the auxiliary to your county society; give it some specific bit of work to do, in aid of your society, in aid of the local hospital, in aid of the state or county health board, in promulgation of propaganda favorable to our efforts to abolish disease, abolish quacks and promote professional interests. Some of you are doing that very well now; some of you have been indifferent in the matter; all of you can help in the development of an organization which we believe can be made of great value to your own local and state societies.

Public Relations. Of the 2 remaining topics, internal and public relations, the former has been sufficiently emphasized for the purpose of this paper and the latter is of such great importance that we will devote the rest of our time to its consideration. Indeed, this problem is so large that we scarcely know from what side to make our approach.

During the past 2 years the officers of the state society, and Dr. Morrison particularly, have been asking the county societies to give more time and thought to economic questions, to appoint public relations committees for the purpose of dealing with lay organizations working in their respective communities, and the Journal has been devoting considerable space to kindred subjects. We are not aware of any special trouble now existing in any county of the state, between professional and lay health workers, but just as we are all preaching preventive medicine so it may be well to consider whether we are in every county prepared or preparing to meet any emergency that may arise. Personally, we feel that the profession would do well to take an advanced position in this matter of educating and directing public sentiment with regard to medical matters, and in the direction and control of lay medical movements through association and coöperation.

From many sources there have arisen during the past 3 years demands that the medical profession shall assume leadership in the practice of preventive medicine, and there have been some intimations that if physicians do not soon act upon that hint retribution will fall upon us in the form of "state medicine" or, lay control of public health matters. The latest item of that kind is an editorial in the New York State Medical Journal of January 1, 1929, entitled "The Practice of Medicine by Medical Societies", and from that I quote the following paragraph:

"The lay organizations have anticipated the doctors in recognizing the advantages and desirability of the practice of public health, and societies of public spirited citizens have entered those fields with the apathetic consent of the doctors. However, physicians have come to realize that if they are to maintain their position as the source of medical knowledge and practice, they must enter upon the practice of civil medicine. They cannot remain outside the field and still criticize those who are toiling there. They must enter the field and direct the workers and do their own share of the work."

In the course of an address to the Secretaries of the Medical Societies of Pennsylvania, previously referred to, we said with reference to this question: "It is our bounden duty not to obstruct any movement, no matter from what source it emanates, that promises to aid in the abolition of disease or the alleviation of human suffering. It is the duty of the individual physician, and of the groups of physicians combined into county and state societies to assist in promoting measures designed to establish healthful living conditions and to prolong life. Naturally, not every movement intended to prevent diseases or to correct existing evils will be conceived in wisdom or conducted with good judgment. Even a good idea may be misapplied; an excellent plan may be mismanaged; and an enthusiastic fool may rush in where an angel feared to tread; an unintelligent worker supplied with fine equipment and perfect working plans may, in the superabundance of his ignorance, waste money and energy, or even wreck his machinery, without accomplishing anything toward attainment of his objective.

Now, it is at that point that the relationship between the county society and the public becomes a matter of prime importance. Let the representatives of the medical profession enter into communion with these other agencies and use their special knowledge for the proper development and guidance of all efforts to rid the world of its problems attending and growing out of sickness. The medical profession needs the aid of every citizen in its fight against disease;

needs not only financial support but the active personal labor of every citizen to make such a campaign effective. On the other hand, I have heard the statement more than once that no health movement can hope to succeed without the active support of the medical profession—particularly of that portion of the profession that embraces the general practitioner. Perhaps it is true, but the fact does not constitute a good and sufficient reason for members of the profession withholding their support from worthy movements. Let us recognize the fact that in this tremendous task the physician and the lay worker in the public health field need each other, and then let us not wait to be invited, or to be compelled, to coöperate in this work, but let us rather offer our assistance and endeavor to establish an effective coöperation of all interested elements.

It is within our power to obviate the evils of state medicine by voluntarily giving the public all the benefits that are claimed theoretically for state medicine; and this we can do without in any manner injuring the medical profession; and this I believe to be our duty.

As I conceive it, then, the proper relation of the practicing physician and his county medical society to the public is that of close and intimate counsellor in all matters pertaining to health, voluntary guidance in all public health movements, and active participation in all efforts to eradicate disease."

In conclusion, may we say that it has been our object in this talk to direct your attention to a few of the more important technical matters concerned with organization work, with a view to producing harmonious action of the machine and of keeping that machine in perfect working order, and to indicate that there is at least one very important question —that of public relations—demanding immediate, serious consideration by the several county medical societies.

DISCUSSION

Dr. Mulford: Gentlemen, you have heard this splendid paper by Dr. Reik, and we trust that he has opened up the floodgates of discussion. We will now be glad to hear anything that you have to contribute.

Dr. Shirrefs: This masterly address of Dr. Reik's should be enjoyed by more than the score of people here in this room and I move that this address, in its entirety, be published in the Journal at an early date.

This motion was seconded and adopted.

Dr. Mulford: To facilitate discussion and not to embarrass anyone, I shall begin at this side of the room and call on you to speak. Dr. Lyon, will you start it?

Dr. Lyon (Cumberland County): I happen to have been Secretary of the Cumberland County Medical Society for about 3 yr. and being one of the youngest members of that society, I took the office with fear and trembling, not knowing whether I could make a success of it. But looking back over those years, I think the society has improved; I do not know whether it is because of the secretary or merely the factor of time.

We hold 4 meetings a year—in January, April, July and October—on the second Tuesday of the month. So far as our programs go, we have found that we have best results by keeping the same Chairman of Program Committee—an energetic young man. He has gotten us speakers time and again from Philadelphia and New York. He tries to get certain speakers with the idea of having them talk authoritatively on tuberculosis, or something special like that. If he could not line them up for one meeting, he would arrange for some future meeting. He does not care just for himself, or while he is in office, but lines up continuous programs that way.

I have tried the experiment of changing the heading on stationery addressed to doctors. Do not have the same line of talk; make it different; it appeals to them. We also have a frequent change of meeting places; that has been a big help. Doctors see a new place, new faces, it means a change for them, and variety is the spice of life. We also have a "dinner" with our meetings, and make it a very sociable time. The dinner tables are arranged for groups of 4 or 5 and we do not place the same group together each time; a different place at table helps a whole lot to encourage friendships.

So far as our membership goes, there are 56 physicians in the county and we have a county society list of 48 or 49. The rest of the possible members, after due consideration and much talking over, we do not consider desirable.

I think, looking at it from 9 or 10 yr. experience in medical work, very short compared to most of you men, that we should set an example at home with these periodic health examinations. When I was out of college about 5 yr., I began to feel groggy and got up in the morning with no "pep". I developed a series of boils at different times and, in spite of diet, in spite of hygienic care, could not locate the trouble. A personal health examination disclosed 2 poor teeth and bad tonsils. I had teeth extracted and tonsils removed, and everything improved. I think this has improved me a whole lot in that I can now better help my patients and also help the county medical society.

There is one question I would like to ask. We have 4 meetings a year, one of which is in July, a vacation month, and I notice that of our 4 meetings that is really the poorest; there is less trouble getting them to attend during the winter months when they are busy. It has been a question with me whether a summer meeting really pays. How many members here have meetings in July or August?

Dr. Shirrefs (Union County): We have one in July.

Dr. Lyon: I think if we made a recommendation changing the date of meeting to June, we would be the gainer.

Dr. Corson (Cumberland County): The question of the time of year for holding a conference like this demands some consideration on the part of the society. When the meeting was held in Atlantic City, in connection with the state society annual meeting, the attendance has certainly been much better than it is today. Of course, just at present there is an epidemic, and that has certainly kept many members at home. The condition yesterday raised the question of

doubt in our minds whether it would be possible to get here. I derived much benefit from the 3 previous meetings and they have compensated me for attendance at all meetings.

As to the question of reports from county societies. I have often wondered how much of the report that I write is read at all even by the local members of the society. When I write my report I wonder what it means to anybody else. I often thought I got a great deal of benefit out of reporting for local newspapers. Our local paper is very keen on getting news from the medical society; regards it as an important item of news for a special column on the front page. We have a social aspect of the meeting but if you do not look out, and fall back on your newspaper report to send to the Journal, you will as Dr. Reik suggested, get a social rather than scientific predominance. There is, however, a great deal of benefit in reporting to the local paper. Newspapers sometimes ask for scientific material in these reports, material that will be beneficial to the public, so that the work of the society is really advanced by interesting the local paper in topics under discussion. From that aspect, should not the reporter get as much as he can into the local paper?

Now, as I asked down at Atlantic City, how much of local news items does the Journal want? Dr. Reik suggested that such items could be submitted to Dr. Bennett and he would use them for his personal news columns. I note that Newark and cities where the reporter seems to be able to look around, are represented more than other places. I think publishing these personal items does add to the interest of members. Provision for having local reports made should be taken into consideration; men are doing something, going fishing, hunting, some dance or whatnot, or conducting plays under auspices of certain organizations, and these items should perhaps be put into our reports.

I am not familiar with use of the typewriter, so the editor will have to pardon my chirography.

Dr. Hutchinson (Mercer County): I certainly appreciate the privilege of meeting here with the officers of other county societies. It is a great pleasure to meet them socially and talk over a few matters, and also helpful from a business standpoint.

Just one point I want to take up. There may be good reasons for not mentioning finances at our county society meetings, but I believe that if a man finds and feels that he is definitely indebted to a society for certain things which come back to him, that he will be a little more keen on attending meetings. I find that our treasurer takes considerable pride in getting every man on our roster to come through before the fifteenth of January. After that day he is out; and there are several men who invariably require telephone messages and telegrams but, up to this year, we have not been compelled to drop any men.

There have been 2 or 3 questions raised in our meetings and one is whether we shall rely upon local talent for our programs. Local men bring out perhaps much more of an attendance and an enthusiastic gathering than if we have outside talent. We have had men from out of town and they have commanded a tremendous attendance, and it has been very enjoyable, but the discussions have been extremely limited because of the fact that a man from out of town seems to carry with him a halo which none of us cares to approach. We hesitate about reaching up there and touching it. We have had some very fine men from out of town and they have been very courteous in treatment of our members.

Now just one more point with reference to press reports. Unfortunately, my experience has not been as pleasant as that of Dr. Corson; my reports may have been printed but probably slipped in somewhere among the advertisements. Newspaper men have been agreeable and sometimes they have even come to my office to take the report down, but unfortunately, the report does not appear as it should; it is a miserable report, name of speaker misspelled, details not given correctly, and leading subject of address out of question if it is at all scientific. I am not opposing the idea of publishing reports in newspapers, but explaining the difficulty.

As to full quota of membership. There are differences of opinion. One of our men, and he is on the Membership Committee, holds the belief that some eligible members should not be taken into the society; men who are not unethical, practicing in a legitimate manner, but who perhaps might not show any particular activity in the society. On the other hand, there are those of us who feel that it would be better to take in almost everybody we possibly can. We could then better control their actions and activities. It is a question that could be debated. We have a number of men in Trenton who are not members of the county society; but just why they are not, I do not know.

Dr. Shirrefs (Union County): Sometimes a man is not considered dumb until he begins to talk, so I had hoped to be allowed to sit back quietly and look intelligent. This is an interesting meeting and I am gathering a lot of good points from it. Our society in Union has 4 meetings a year and, sometime ago, a vote was passed to consider the question whether we should have 6 or 8 meetings. It resulted as follows: Majority of members in favor of increasing from 4 to 6; our Constitution and By-Laws require a two-thirds vote to effect a change and we could not muster quite that number; the majority of those present did think it a good idea to have more than 4 meetings.

With regard to making reports, the method that has been most helpful to me is that on the very next day after a meeting, during office hours, between patients, to write a few sentences at a time until I have doped out something that I dare send to the editor.

Dr. Mulford: We have been waiting for Dr. Morrison to come, and seeing that he has just arrived, we will suspend this discussion and ask if he is ready to address us on "The Modern Trend of County Society Functions".

Dr. Morrison: Mr. President, I am sorry to have to disappoint you about a set speech this morning. The exigencies of practice have been such that it was impossible to give this matter the time and thought it deserved; I had intended to come down here with a paper suitable to the occasion but have been unable to make the proper preparation.

I would like to try to impress upon all of you the importance of extending the influence of a county society, as a county society, in the practice of medicine. The practice of medicine has been an individual matter from time immemorial and far too many of the members of your county societies have felt that they did not care to do much public work, in which there was a distinct financial return, but they will yet rave when others undertake to do it. Coupled with that, personal criticism has made its inroads into the profession, and these 2 things have been responsible for de-

stroying to some extent the confidence which the public had in the medical profession. There was a time when it went without saying that the doctor's word was the highest authority in any community. It is not so any more. For 5 or 6 years we have been straining every effort to overcome opposition, overlooking disappointments, in the effort to reëstablish in the public mind that degree of confidence which the public should have in the family physician, and the time has now come when the county societies, as units, must exert similar effort. You can do legitimately in a county society that which you cannot do as an ordinary physician.

Bergen County, for instance, has started one thing and is doing it well from a businses point of view; that is, carrying advertisements in the county papers. Scarcely a newspaper published in the United States is without some "health article", prepared by a doctor or by some lay organization. The county society, through its representatives, can reach the press and should make full use of its opportunities; making the public see that the information given out will be *authentic medical information.* We shall watch with much interest the progress of Bergen County's experiment and report later on the feasibility of its adoption by other county societies.

Another point which appeals to me is the strong influence the county society might have through public health organizations. You nearly all have public relations committees and it seems to me that such committees should be on the job all the time; each under active supervision of the secretary and president of the county society, to guide and direct the activities of all public health movements. Public health organizations are here to stay. They are growing in power and expanding their work. The medical profession must get back of them. Your public relations committee is the right body to do this. There is no reason why there should not be conferences with such organizations 2 or 3 times during the year; have a dinner or a round-table talk; invite health officers, public health nurses and the welfare workers; everybody who is rendering any public health service. Above all, do not show opposition to these organizations. One hears sad stories from some physicians about these organizations, stories that may be true in the main, but remember that you can catch more flies with molasses than you can with vinegar. As a general proposition the people engaged in welfare work respect the physicians, respect them highly, and will be glad to confer with them as to what can best be done for the conservation of health.

Dr. Wood (Essex County): I appreciate your calling upon me, Mr. President, but I really have nothing to say. I was only recently elected to the office of reporter and have as yet no experiences to relate, so I can only say that this meeting is to me very stimulating.

Dr. Irvin (Atlantic County): I am a new reporter, too, and so far as my duties go, know very little about them. I have learned something from Dr. Reik, and hope my next report will be better than that for the month of January. We have decided in our society to try to have our meetings taken down by a stenographer who is conversant with medical terms, but just before the last meeting she was taken sick. She is going to start in with the February meeting.

Our speakers are chosen by the presidents, and the present leader has started a policy of having one outside speaker and one man from our county society. The January meeting worked out well. Speeches on topics that were pretty well related made a complete evening. We have 8 scientific meetings a year, and an outing in the country during one of the summer months. At 1 of our meetings we have a clinical program, given in the Atlantic City Hospital by the Staff, presenting patients and so forth. It worked out very well last year and we are going to repeat it. It gives all members a chance to see what type of work is being done in the Atlantic City Hospital.

Our Woman's Auxiliary has helped our meetings; meeting at the same time and place, the wives bring a lot of husbands with them.

Dr. Pinneo (Essex County): We are very glad to introduce to you our new reporter, Dr. E. LeRoy Wood. He is very modest; made an excellent report for the December Journal but forgot to put his name on it, so it was attributed to the secretary who sent it in.

Dr. Reik has said that the county society is the basic unit of medical formation. The state society represents a republican form of government in which members really speak through representation. Being a Presbyterian, I am also a member of another organization with delegated control, and questions originating in the higher bodies have to be referred back for general discussion before being accepted by all.

Dr. Reik has also spoken in regard to reporter's work and the value of getting the work of our members before the full membership of the state society because other than the Journal they have no medium of communication with their fellowmen. Now we have got to help develop our state journal.

One of the great problems that concerns us is the relation of the profession, as an organization, to the community at large. Besides the relation of individual physician to the sick citizen, we have a relation of the profession to the community at large, especially as regards preventive medicine and health legislation. Our county societies depend largely upon their representatives on the Welfare Committee to outline policies for the whole state. Our circular letter, which calls our county society meeting, is usually sent not only to members but to a large list of outside medical men. Therefore, they get acquainted with activities of the county society. When there is to be a business meeting, these letters are not circularized. Among advantagse of membership, we have mentioned to them various insurance policies which are obtainable at reduced rates; automobile, health and accident insurance. We have not been able to obtain group life insurance because the law requires 70% of members to subscribe.

Dr. Snedecor (Bergen County): Bergen County has 2 topics to present to this meeting.

I was instructed by the officers of my society to talk about the Knickerbocker Adjustment Company. We are not on a very high rating with them just now and we would like to know what the rest of the county societies are doing with that company. We are having trouble to express ourselves because of the liability of suit for publishing such material in the Journal; hence, it is impossible to get a free discussion. We are not getting service from the company. Last March, they solicited accounts and obtained 67, that is about half our membership. Since then, we have had very little service from them. Last autumn, Dr. King called attention to the fact that practically no one had received a statement from them in September. There was very little explaining or satisfaction to be obtained. We started to take action since October and we are getting various

degress of reaction. Without giving a specific complaint, we did not feel that they had lived up to their part of contract. When brought to their attention, they protested that the fault is on our side; it is, too, more or less true that doctors are poor business men. There are about 57 things in their contract which we did not know about. We would like to ask if any of the other societies have had similar experiences? Take it as a warning before getting into difficulties with them.

Collection agencies, collection of unpaid bills, is a problem with every doctor in the state. Could not the state society organize an agency or supervise collections so that members may have fair treatment in collection of their bills? Is it not a proposition that the state society may take up and develop?

The second topic is really the chief project of the Bergen County Medical Society this year. Last spring, we were given $1000 to spend in developing public relations. Dr. Reik and Dr. Morrison have both given you splendid outlines of the duties of the medical profession to the public in the present day. We not only believed that, but we are trying to carry it out. The New Jersey State Medical Society has taken up publicity work with radio programs, newspaper publication of radio talks, special talks before Rotary Clubs, and in every other possible way to explain the medical profession to the public. It is time the county societies took a stand. Perhaps I represent the younger generation who are more energetic to do this than are the elders. Reticence of the medical profession is a handicap today. The public believes what it is told. Others get more chance to tell them than we do. We want to explain the aims and service of the medical profession to the public. We must get people to understand that the medical profession serves the public, and tell them what that service is. Such as: the free time we give to hospitals; development and use of hospitals in community dispensary work; antidiphtheria campaign; eradication of cancer; tuberculosis work; and all such public health activities. We can tell of the relation of patients to doctor. We can ask: Do you budget for sickness? Do you plan to pay your doctor bills? Not *have you paid* your doctor, but in a careful way, gaining confidence. Explain why provision should be made to cover illness. The Life Extension Institute deserves full credit for creating a demand for periodic health examinations; they have also created a state of affairs wherein physicians are recognized as the only proper persons to make health examinations. The campaign of the state medical society has not had the success in periodic health examinations that it deserves. The only way to counter that is to educate the public by advertising that they get the best health examination by going to the family physician. There are other problems to look up and teach: the high cost of sickness of which everybody complains; high cost of hospital bills; but they do not appreciate the modern equipment a doctor must have, expense of office fixtures and his modest income, comparatively, throughout the country. Perhaps tell them the training of the doctor—how many years of experience he has in medical school, college, hospital work; how he is protecting the public. We can give our views of osteopathy and chiropractic. What is osteopathy and chiropractic—define it, emphasize it.

The question was raised: How is a person to know whether a doctor is ethical or not in his community? Is it not time we identified ourselves as ethical, honest members of our profession. Is it not time we told the public of the Bergen County Medical Society and the New Jersey State Medical Society; that through our being a member of such societies they are guaranteed fair treatment; not guaranteed a *cure* but fair and *honest treatment.* To show them that we belong to such an organization, we have adopted a seal which we had to have made up for our own individual society because the A. M. A. refused to let us use their emblem. We are having certificates printed, to be framed and hung in every doctor's office, to show that he is a member of the county medical society. More than that, this seal will be put on office stationery, prescriptions, etc. Show them that you are a member of a society entitled to public support.

Then we went further into the question of medical advertising. It took a great deal of work to find out what had been done throughout the country, but we found many of the western state medical societies, like Wisconsin and Toledo Academy of Medicine, were sponsoring publications on health topics of the day. We tried to gather information and dope out a plan of contract for paid advertising and we finally adopted an outline like this (showing chart). The outline kept the

---

WEEKLY HEALTH BULLETIN

"It Began with 'Just a Cold'"

The second greatest single cause of death in the United States is pneumonia, and about one-half of these cases begin with "just a common cold". So do many other serious diseases—pulmonary tuberculosis and chronic arthritis, for example. More time is lost in industrial organizations because of colds than because of any other disease. Colds are, therefore, important. They cost lives and time and money. They are the small beginnings of big troubles.

To avoid catching cold you should keep yourself fit. Keep your stomach in good order. Avoid fatigue. Don't bundle too much or keep your house too warm. Avoid crowds and wet feet.

When you do catch cold, remember that coughing and sneezing spread the germs. (That's probably how you got yours.) Use your handkerchief. Sleep in a separate room until it is over and spare thereby the other members of your family, but, and **above all**—consult your doctor early. Early treatment will prevent a long illness. Beware of the cold that goes down into the chest and remember that the moment that there is fever your cold has become dangerous.

It is best to play safe and see your doctor as soon as a cold develops. There are many types of colds. He can give you the correct treatment before your condition becomes aggravated and save you much suffering as well as time and money. When you catch a cold, remember that you are exactly where many unfortunate ones were when it was "just a cold", and be wiser than they were. See your doctor early.

This is the seventh of a series of articles sponsored by the Bergen County Medical Society. The next, an article on Tuberculosis, will appear in this newspaper next Wednesday.

BERGEN COUNTY MEDICAL SOCIETY
Hackensack, New Jersey

WEEKLY HEALTH BULLETIN

We Want Your Opinion!

For the past nine weeks in this space, the Bergen County Medical Society has published information on current medical subjects such as Diphtheria, Smallpox, Influenza, Health Examinations, Pneumonia, Coughs-Colds, Tuberculosis and Cancer.

What do you think of these articles? Have they been helpful? Are there any particular diseases you would like discussed? Any ideas or suggestions?

We need your active interest to help us further the work of this organization designed solely to guard your health and your pocketbook.

Your health is **our** business. **Your** business is to keep your health.

Coöperate with us—your personal opinion is valuable.

Please write today to the Bergen County Medical Society at Hackensack, N. J.

Bergen County Medical Society is composed of 155 qualified physicians who have been licensed by the State Board of Medical Examiners after careful consideration of their training and ability.

Membership in this Society makes each one a member of the N. J. State Medical Society and also A. M. A.

Before a physician is accepted by this Society he is carefully investigated as to character and professional status.

The fact that your physician is a member of the Bergen County Medical Society stamps him as an honest and qualified practitioner of medicine who has met the high standard required by law for your protection.

This is the tenth of a series of articles sponsored by the Bergen County Medical Society. The next article will appear in this newspaper next Wednesday.

BERGEN COUNTY MEDICAL SOCIETY
Hackensack, New Jersey

---

same and published every week in 3 newspapers in our county, to be carried on for 6 months. Each week we will talk upon new topics. It is experimental, and we are probably the first county society in the United States to place paid advertising of this type. We have tried to have a newspaper write-up going along with this, calling attention to these special articles each week. There is much further work to be done. We hope other county societies will take up this work, that the state society will do more, though they have already done a whole lot.

Dr. Borow (Somerset County): I do not think I can add much to what has been said. These meetings will be helpful in that they give every man an insight into what county and state organizations can do.

In Somerset County, though our meetings are the same in number, our members are taking more interest in the work now than in the past. Dr. Ely has described to you what is being done so far as the Antidiphtheria Campaign goes.

There is one thing I would like to bring up, mentioned by Dr. Snedecor, with reference to this collection agency. Now this firm came to every man's office and stated that they had been endorsed by the county and state medical societies at the state convention. I noticed that the Knickerbocker Company had a booth there. Their representative claimed that they were endorsed by the state medical society and advised every man to use them as collecting agency. I wish something would be done in that matter to inform every member if a firm of this type is endorsed by the state or county medical societies, so that a man may know how to stand in relation to believing the agent's statements.

Dr. Tracy (Burlington County): I believe Dr. Corson's suggestion should be discussed, that the secretaries and reporters' meeting should be held in the Spring, or at some time when we are not so busy, as in January.

Regarding membership, I remember very well that 25 years ago Burlington County considered this question and there were many practicing physicians whom we thought undesirable, not because of any moral defect or for bad practices but simply because they were not congenial; perhaps one man was a homeopath or something like that. But I believe it is now high time that we should get as many members of our county societies as we possibly can. You never know when such a member will be a profitable asset; it may be when some legislative matter comes up and you find that the assemblyman or senator in your county has this particular man for his family physician and is or may be guided in health legislation by that doctor.

Regarding scientific program, I believe it is a wise thing to have the chairman of program committee continue from year to year. With frequent changes they very often fall down and have to call upon the secretary. We, in Burlington, have increased our meetings from 4 to 6 per annum and with good results.

Dr. Downs (Burlington County): I am certainly indebted to Dr. Tracy for calling me up yesterday to remind me of this meeting for I am thoroughly enjoying it.

Up to the present time I have not been so prompt and explicit in reporting personal items as I might have been. I shall endeavor to let you know hereafter who is playing golf, going fishing or developing some other of their sports. Now, when I have made out a report of our meeting, I have sent that, before handing on to Dr. Reik, to the editor of our local paper and he has taken what he wished for publication.

Periodic Health Examinations. I believe in that. I feel that when I do physical examination work I am helping the community. I know that 5 years ago I first learned from a periodic health examination that I was developing kidney trouble from bad teeth. I had believed those teeth were perfectly good and only discovered the dangerous condition after a health examination. Because of that personal experience, I feel that I may help my community, and other physicians can do the same by interesting themselves in this work.

I enjoyed Dr. Snedecor's talk about advertising, and will consider whether that might be a good thing for our local society.

I think it would be advantageous if we could have a stenographer to take down notes; it would help us a great deal in our work of reporting.

Dr. Lathrope (Morris County): Mr. President, may I say first that this is the most pleasant and helpful of these meetings that I have attended; and it is the third, I believe and would have been the fourth if illness had not prevented my being at the one last Spring. Now, right there, we owe

a debt of gratitude to whomsoever, I suspect it is my friend Morrison here, or possibly Reik, has kept this thing going. I think before we leave here today we ought to try to organize in some way so as to make this a yearly factor, and as Dr. Corson and one other have suggested, at some time a little later in the Spring or when travel conditions are better. It is a little hard to get over the road up our way; this morning travel was bad. Also, it is an epidemic time of year always.

It is always a pleasure to listen to Dr. Reik and to Dr. Morrison, even when they flay you; that is an experience I have frequently had from them, but it is always helpful. It has been helpful to sit here and listen to the rest of you talk and hear about your specific problems. I just want to answer from our angle a few of the points that have been brought up before I bring up any I am concerned with myself.

Lyon spoke about the number of meetings. We have 4, according to our by-laws, in September, December, March and June, but we take it upon ourselves to have as many *special* meetings as we want; and we had 2 special meetings last year, at which there was no business conducted, making 6 meetings a year. As you see we can increase that to any length we wish, without changing the constitution. It has worked out so far very successfully.

Dr. Hutchinson brought up the question of program by members or by outside talent; one of the things I have in my mind, and I think a mixture of the 2 has worked best for us. Get a visitor to bring in some outside views. We generally have fine meetings, but our best are the meetings in which our own members prepare the papers.

The question was also brought up as to membership—whom shall we admit? The state constitution and by-laws specifically state that any physician in good standing in New Jersey is entitled to membership in his county society. These are not social organizations, as I take it. We have a duty to get into membership every eligible county physician. One gentleman has said very aptly that we never know when we can get some good out of him; I add, that we never know when he will get some good out of us. He may be a little dull on ethical procedure and yet entitled to membership in the county society, and it does not hurt the society to have him in.

Dr. Snedecor's report is exceedingly interesting and if Bergen County Society is as good as its secretary, it's a pretty darn good society. He is all right; he put that publicity over in a very interesting manner. We started a year ago something of that kind but we have not done much with it. Had information of that sort in our minds when we started it, and I am only sorry for having spent the year in such fashion that it does not enable me to get up here and tell you some accomplishment such as his. It is going to be a very interesting thing to watch.

Now, I have been thinking a great deal about these county society problems during the last week or so, since the report of the Tristate Conference came out in the January Journal, which I read through from start to finish with a great deal of interest because it was on this particular subject. The A. M. A. is simply a problem of organization. The problem of the state society is comparatively simple; there again it is a problem of organization. The problem of a county society is complex because it combines all the problems of *individuals* and that is what you and I and the rest of secretaries and reporters have got to deal with. We do believe that it deals with the proper functioning of the whole thing, as has been said several times this morning. Of the functions of the county society, Dr. Reik spoke of Dr. Lawrence's paper, and he mentioned 4 functions—scientific work, public relations, social, and internal relations. The public function of the society is essentially in its beginning. The function we never want to lose sight of, is to spread scientific knowledge to the public.

Now this question of attendance. That is the one which vexes most of us. How many do you have at your meetings, Dr. Pinneo?

Dr. Pinneo: Our biggest meeting, about one-third our membership.

Dr. Lathrope: The largest societies have trouble: the smaller the society the better the attendance percentage. Our best meetings run about 50%; run anywhere from 30-50%, and I think the smaller the society the easier to get a large percentage out.

Two years ago, at Atlantic City, I think we discussed some reasons for attending meetings. My friend, Dr. Morrison, got up and said that members should come because they were interested in the scientific program. Let each one of us consider that point—why do you go to a medical meeting? I go to ease my conscience. Often I do not want to go. I know that, later, I will be glad I have been, but I am tired and I do not want to get out, and I finally go because a sense of duty drives me there. About 1 out of 10 times I go because there is on the program a subject that I am awfully interested in, and I happen to be thirsty for knowledge. I am not thirsty for knowledge all of the time, it only happens occasionally. I admit it very frankly, I am no highbrow. I do not mean that as a reflection on any one but I am going to let it go. Now, I think that represents the state of mind of a great many of our members. Secondly, I feel that as secretaries and reporters and presidents and officers of the medical society, we have got a job on our hands to try to develop a sense of duty among members. Meeting comes along, and it is up to them, unless some life or death matter interferes, to get out and attend. Another thing that can help. Inculcate among your members the idea that they belong to one of the most progressive county societies in the state. Develop a sense of group pride. I'll bet Bergen County thinks it's the big cheese. Bergen County attendance at meetings the past year and coming year will be from 10-20% more than 5 years ago.

As to the question of discussions, when we have invited a speaker from outside. I usually try to get in touch with him and say this: "Now we are not a crowd of *literati* out here, we are not a big state hospital seeking to show off; we want something practical out of you that we can take home in our pockets and use tomorrow. Most of us do not want to hear a lot of theory. Then attract men into discussion of the paper. If they won't get up and speak, get the president's ear and tell him to call on so and so; make them get up. Help them to get away from that inferiority complex which makes them hesitate so much about this thing we call discussion.

Our public relations are becoming increasingly important. I found out a couple of years ago that it was a very simple matter to get in touch, and get into a very satisfactory touch, with any of the lay organizations in my county. All I had to do was to go to the president and secretary of the organization and say that the county medical so-

ciety is very much interested in what you are doing and would like to be notified of the time of your meetings and have a representative there. Now that is all the initiative that you have to take. They respond promptly.

Dr. Ely (Somerset County): I think Morris County Medical Society men must be just as active as ever. Many years ago I attended their meetings and I think it was attendance at those meetings that led me to be interested in county medical societies. Therefore, when I went to Somerset, I tried to hold up my interest in county medical society work.

Somerset has a peculiar situation. We are a rural and inland town district and do not have any large cities; Somerville, Bound Brook, North Plainfield being the largest. It is clearly desirable to get these men into county societies but their interests may be promoted in some specific local society and they do not care to add any other obligations. North of our county seat we have another problem; they are so closely associated with Morris County, that it attracts them over the line. Another problem is our large farming section. We know one man, 44 years in practice, who went into that community as a young man and now he is taking care of the whole land. One man doing about 8 men's work. At county meeting it is almost impossible that he should get in; always something on hand to keep him from coming. How to get young men interested, I do not know. Dr. Borow, I am very glad to see here; he is our new secretary. He will, I hope, bring in other young men to our county organization. It seems difficult to get young men interested and the older men are dying off.

We have 6 meetings a year, according to our constitution, but whether the June summer meeting is wise, I do not know. Our secretaries and presidents can increase the attendance, we found that out at our annual meeting, by asking the members of the woman's auxiliary to join with us; we did have a good turn out and a larger representation of doctors.

Regarding speakers. Men from the city often come and speak to 4 or 5 physicians; it is discouraging for the scientific committee that arranges for such meeting. Following a plan for the last 2 or 3 years, we have connected with the hospital staff and also invited the nurses to listen in. I think nurses appreciate hearing men from out of town, and every advance we give them in knowledge the greater their enthusiasm. We have not, for years, attempted to give a paper by our local talent. We have good talent but we have not used it. I think the best meetings I have attended have been some at Morris County, run with their local talent. Local talent is best talent if we can use it, dealing with problems we are meeting every day. How to get men to do it is the problem.

Another problem with us is the meeting place. We have not at present time a meeting place. For 75 years, Somerset County Medical Society met in one room in an old hotel, until progress of the town tore it down over our heads. We then used Freeholder's room but it was always being used for something else when we wanted it; tried public school, janitor not always present; and, finally, the Nurses' Home, but whether it will be a permanent meeting place, I do not know.

In regard to new members. A large majority of our members are in the country. One will join but after a time he fails to pay his dues and then he is dropped. What shall we do with such a member? There are many men out of county society who have been members but have been dropped on account of nonpayment of dues. Some of these use the argument that it cost too much, what do we get out of it? I feel it a duty to go to medical society meeting. Always have felt so; and I always get something out of it. We also are hearing of some complaints about the collection agency; 2 or 3 men are always sore about these things when we meet in the hospital corridor. We have not a public relations committee and I do not know whether we really have a man who could take time to write up such articles as Bergen County reports.

The making of health examinations is one of the big problems, for the average rural practitioner starts at 7 a. m. and finishes at 10:30 p. m. I know it would be hard for me, because it requires from 1 to 2 hours to do a good health examination; and I fear we have to give way to the Life Extension Institute or develop specialists in this field, for the country doctor cannot do it.

The Bergen County report was excellent. I think the idea of having a special seal is a good one. We have a Somerset County seal but do not use it any more. Our history dates back 150 years and holds the record of being the oldest or one of the oldest county societies in the state.

Dr. Mulford: Gentlemen, the call of the digestive tract is at hand and we are all going to retire now to the dining room and we will call on the rest of you at the table.

(Meeting moved to another room where luncheon was served.)

Dr. Mulford: Dr. Lawrence seems to have finished; will he please continue the discussion?

Dr. Lawrence (Ocean County): Mr. President, I am surely delighted to be here. I felt it not only a duty but a pleasure to come over.

We have somewhat the same condition in Ocean County that they do up in Morris. We found it absolutely impossible to get any men from the western portion into our county society; you see their contact is entirely with Trenton and naturally that is the place to which they would go. Ours is a very small society but it has increased its activities and interests. We have also changed meetings from once in a year, or once in a while, to 4 meetings per annum; meetings not fixed but at call of the president. Personally, I would like to be able to visit from time to time another county society at some interesting meeting, and I believe that it would be well if we could obtain from some source a sort of calendar as to when these other county societies meet. I find that I have gotten that spirit probably somewhat from being a Rotarian. A Rotarian is a member of whatever club he happens to be near. I have visited a great many Rotary societies, all the way from Oakland, California, all over Europe, the West Indies, get in touch with various clubs, see what they are doing. I would like some sort of calendar, possibly in our medical Journal, that might help us in that way.

Of course I send in report of Ocean County Medical Society meetings but, unfortunately, many times there is nothing to record; nothing of importance in meetings; but when we do have meetings, I try to forward my offering to the Journal very promptly.

I am heartily in accord with the Bergen County plan; other counties should take it up and sponsor it. The state society may possibly improve upon this and put it into such form that we can all adopt it and follow it.

Dr. Woodhouse (Ocean County): I am one of the newer secretaries, in fact I have just been elected Secretary to Ocean County Medical Society, and I really know very little concerning the duties or troubles of secretaries. There is just one question that keeps coming to my mind all the time. I had the pleasure of joining a little society in Westfield, New Jersey, about 4 years ago and as Dr. Snedecor has already said that one in practice of medicine should consider it as a business. It seems to me it certainly should be a business for all medical men and we can spend a little time looking after a business aspect of our profession through the medical societies; we can gain money by it.

I am very sorry that I cannot report from my society. Dr. Lawrence has done that very well. I am very glad to have been here to listen to the other men.

Dr. Mulford: Last but not least, the splendid large delegation from Camden, Dr. Buzby.

Dr. Buzby (Camden): Thank you, you flatter me. It is a great pleasure to be here though I, like the last speaker, have been a secretary only since October.

In Camden County we have had a peculiar situation. There are 2 medical societies, Camden City and Camden County. Camden City was the major society; it met once a month in the evening in a building which it owned. The county society met every 3 months, in the afternoon, and its activities were confined mostly to business affairs. Two or 3 years ago, some of the younger members of both societies (every man in the county, practically, is a member of both societies) concluded that since Camden County Medical Society was the component part of the state and of the American Medical Association, it should be the active one and effected a change so that the county society now meets every month and city society only every 3 or 4 months.

The program is prepared by a Program Committee, with a chairman, who is an active young man, and who sees to it that we have plenty advance notice of what the program is to be. While not attempting anything extraordinary, we have tried recently to develop home talent, and it strikes me that our meetings have improved with use of home talent. Our next meeting takes place on February 26, Tuesday night, and there is to be a symposium on "Local Anesthesia", illustrated by motion pictures. Our President, Dr. Day, is very prompt, whereas previous presidents have not been, and his promptness and the evening programs have increased attendance.

I came up here today and raised the question of the Knickerbocker Adjustment Company with Dr. Reik before Dr. Snedecor spoke. Just this morning a man said to me: "If the New Jersey State Medical Society doesn't sponsor these people, why do they advertise on the second page of our Journal?" I could not give him an answer. He was complaining that he had asked for a statement and it had not been sent to him. He said that he had written the matter would be taken up with the state society.

Relative to the procuring of members for the society, we have queer experience in Camden County. Each year 5 or 6 members have to be dropped for nonpayment of dues. They are not dropped during the first or second year of delinquency but after that. The question is whether these men shall be admitted again. They show no inclination, no activity, no desire to coöperate; why should it be done? Our young men all seem to be anxious to join the society and take an active part therein.

Dr. Schall (Camden County): I want to apologize to Dr. Reik, first, about the November and December reports. We had a local talent meeting and he asked me if I would have papers sent in for publication. I got each man to promise. Dr. Buzby gave me a paper from one of the men, but Dr. Reik had finally to telegraph me that the reports were held up for want of 1 paper. I called the man at his office and he said that he had rewritten it 3 times and it still didn't suit him; and I believe to this day Dr. Reik has not seen it.

With regard to Knickerbocker Company, I have had little experience with them. I sent in an order of 3 accounts to try them out, believing the company was endorsed by the society. Later the agent wrote that he would have to bring suit on one acount and I would have to forward a check for $8 to meet the costs, though he had told me there would be no necessity to put up any money. I sent word to discontinue service so far as I was concerned.

Dr. Mulford: I hope you will all excuse me for shooting with this shotgun but I thought that was the best way to bring out a general discussion of these problems, for I've found that if you wait for a brother to get up and pray there is not very much prayer. Now we will listen to Dr. Morrison please, because he came in late and has by now caught the drift of what happened before his arrival.

Dr. Morrison: It was my full intention to be here on time but I had an emergency operation to attend which held me until 11 o'clock. Not having heard all the discussion, there are 1 or 2 points which I want to call attention to. I would like to ask you to show, by a raise of hands, how many societies hold clinical meetings, with the patients present? (Only a small number raised hands.) County societies should hold clinical meetings whenever possible and with a good many new hospitals being started on every side you have good centers for clinical meetings. The Union County Society meetings are the best I have seen, where clinical meetings are held in the hospital with the clinical material right at hand. I do not see how any member of that county society can afford to be absent. In certain counties the membership seems to be divided among 2 or 3 hospitals, and it is difficult to get men from one hospital over to the other's meeting, but that can be overcome if these meetings are held under the auspices of the county society.

Cost of medical care. You are all receiving yellow blanks from the A. M. A., a questionnaire as to the cost of your medical education. That matter is before the National Committee on the Cost of Medical Care, and this is one of the problems which they are attempting to work out. It wants to show the public very thoroughly how much it costs physicians to become able to take care of the sick and thus try to show the justice of charges made. The A. M. A. cannot secure proper data with which to work unless you fill in those forms and mail them.

Dr. Lawrence spoke of desiring to attend other county society meetings. In some counties there are elected delegates to adjoining counties. Adopt a similar plan. Secretaries could remember to send a program of meetings to such delegates and with a greater degree of interest developed in the adjoining county society such delegate will be present.

Dr. Reik: Up until noon yesterday, I was in

some doubt as to the advisability of letting this meeting go on. I recognized existence of the epidemic in the state and feared that we might not have a good meeting, so I considered a telegram to call off the meeting. I am very glad that I withheld it because this meeting could have been better only in one respect—in being more largely attended—and I doubt if we could have secured a larger attendance at any other time.

I have been secretary to something or other ever since I have been able to write. So, I am in a position to recognize and appreciate, even if I cannot fully understand, some of the problems that you as secretaries and reporters have to deal with. I sympathize with a good many of you, but I have to keep after you to send in your reports at specific times. Now, there are a number of items which I want to talk about.

Dr. Lyon spoke of having submitted himself to a physical health examination. I have said several times, before county societies, that the best way to promote this project is for the medical men to apply it in their own homes—to themselves and to members of their families. Dr. Snedecor said in the course of his remarks that the campaign for putting over periodic health examination was a failure. It was a howling success with the public; a failure only with the profession; we didn't get it over with the doctors because the vast majority of them displayed very little real interest; they will "resolve" against outside agencies making examinations but will not themselves prepare to do such work.

The question of getting good county society reports is a very important one. It is difficult to outline exactly what you ought to give us in a report, but certainly it ought to start off with statement of time and place of meeting, who presided, the number in attendance, and specific record of business transacted. Then tell what paper was read; give an abstract detailing the important points brought out. If the paper seems worth while, get it for publication in full. You cannot always get it, Dr. Schall, so it is wise to make up an abstract and be prepared to send that in for publication. If you say that Dr. Mayo, for instance, was there and talked on some surgical topic, your brethren want to know what he said. Did he advise this or that and why? Next, social items are of value, for others in remote counties are interested in knowing what you are doing. We have generally been unable to get news items from the officers of the county society. In the Journal we have usually a good many "personals" concerning physicians of Newark and Atlantic City. Why? Because I subscribe to the Newark News and the Atlantic City Press, and cut out news items pertaining to doctors and send such clippings to Dr. Bennett for his section of the Journal. Now I doubt not that Newark men are quite as much interested in what men in other counties are doing; so give us more of these news items. Dr. Bennett is seeking to limit the repetition of A. M. A. Propaganda for Reform material and he would much rather fill his space with news items but there has not been enough of that material.

Local versus outside talent is partly a problem of local concern. Take the Atlantic County Medical Society—their local members do not have to worry because they invite a man to come to Atlantic City for the weekend at the county society's expense, at one of the best hotels, and have no trouble getting speakers from New York, Baltimore or Philadelphia. At their last meeting they had a local man with an outside man, and the plan worked well. If you want to know what can be done with utilization of home material, Dr. Lawrence, visit the Morris County Society when you get an opportunity and see how they will put on a symposium by their own men. Every year, on the last page of the Supplement to the August Journal, we publish a list of the county societies and their state meeting dates, and you can make up a monthly calendar from that source.

Regarding reporting of other organizations holding meetings in the county. You may have noticed that we are publishing not only proceedings of the Atlantic County Medical Society but proceedings of the Staff of the Atlantic City Hospital. We invited all other big hospitals in the state to submit similar reports. In the past 4 or 5 months, we have published the North Hudson Hospital clinical reports. We will be just as glad to have it from Elizabeth Hospital, Somerville Hospital or from any other of our good institutions. We want that sort of material for the Journal.

The matter of newspaper articles and radio talks that we are broadcasting every Friday evening from Station WPG. They have been mimeographed and sent out to practically all the papers in the state—150 newspapers—coincident with the broadcasting. I have found it very difficult to find out what percentage of the newspapers are publishing these talks in full because only a few of the papers send us marked copies, and we wish each of you would keep tab on your county papers and report whether they are being published, or, if they are not, will get them to publish these talks.

Coincident with this public health work, might not the county societies take up with local papers the question of medical advertising that those papers publish? In one of my radio talks, 2 weeks ago, I spoke emphatically to the public about some patent medicine advertisers who were making preposterous claims for their preparations as preventives of influenza. The New York Times carried an advertisement in which there was a sentence to the effect that one drop on the handkerchief in the morning and inhaled frequently during the day was a sure preventive for influenza. In the speech over the radio, I denounced these things. Since, I have taken it up with the Times and explained what it is doing to endanger the lives of innocent readers, as well as to defraud them of their money. Your local county papers are full of such deceptive, fraudulent advertisements. It is useless for me to write to them but they may listen to local friends; it is a matter for your consideration.

I am sure those of you who come from Harvard and Yale and such other big universities must have been very much impressed by the humility of our friend from Princeton, who is "not a highbrow" but used the word *literati*.

Gentlemen, I saved the most interesting proposition till the last, except one, the question of organization. This meeting was called for today purely on my own authority after provision was made by the Trustees. I have no authority from the state society to make any further suggestions, but this thing is growing in other states and a useful organization could be formed here. The A. M. A. calls a meeting of the state society secretaries and invites editors of state society publications annually to meet in Chicago, and then turns the meeting over to them. We are meeting as secretaries and reporters of the component

county societies and I cannot think there will be any objection on the part of the state society to your establishing a sort of permanent organization. The President and Recording Secretary are present, and it is a good time to take up the proposition with them and ask permission to elect when and where you may next meet, and to choose officers.

Now for the Knickerbocker Adjustment Company. I want to ask Dr. Snedecor one question before I launch out. Did I understand you to say that because of the danger to the Journal of publication of your remarks, it was impossible to get a free discussion of that question?

Dr. Snedecor: Yes.

Dr. Reik: Everything that Bergen County has had to say has been published, exactly as sent to me, in the Journal at the risk of our being sued for it.

Dr. Snedecor: But you said you would refuse to publish any more loose talk about that affair.

Dr. Reik: Exactly, I do not want any more *loose remarks*. You must be prepared to back your statement by facts. Here is what has happened regarding the Knickerbocker Company. Two years ago, in a society report from Atlantic County, the company was severely criticized. I published the report. I was jumped on pretty quickly by the company, and, later, I had to publish an apology because the fault was with the complaining members not with the company. Doctors will not answer correspondence; you all know that. Ten days ago, I sent to the presidents and secretaries of our county societies a letter asking for action on a certain proposition. How many of you have answered up to date. Two presidents and 2 secretaries out of a total of 42. Is it surprising that I smile when you tell me physicians are complaining that this company, or anybody else, does not answer letters promptly? When I came home in October from vacation, I found that, in a report, Bergen County had scored the Knickerbocker Adjustment Company very severely. If that matter was not true, if it could not be substantiated in court, the Medical Society of New Jersey could be prosecuted for slander. Immediately, I wrote to the officers of the Bergen County Medical Society asking for substantiation of the charges. Incidentally, that report criticizes the state medical society for endorsing this company. The state medical society has never in any way endorsed the company. It has an advertisement in the Journal, however, and, as we accept only firms believed to be ethical and responsible, we did feel that we owed it to our members to investigate the charges, and we offered at once to do so. We could not get from the doctors a specific statement of their complaints; no statement that would stand in court. As soon as the Bergen County matter was published, I wrote to the officers, and to the man making the chief complaint. My letters have not been answered. At the same time I wrote the company, asking for an explanation. Mr. Hcerey replied at once: "If you will come to our office, we will throw our books open to you; investigate the whole matter for yourself." I tried to consult the chief complainant but he was ill that day and could not see me. I wrote to him saying I would like to have specific information upon which to act. He has not responded. Dr. Snedecor has written to me. He and I have had a good deal of correspondence, but what he sends me is only gossip. The Bergen County Society had another meeting at which the company's representative appeared; I knew nothing about that until later. The company, however, again issued an invitation to inspect their books if I would be willing to meet the doctor from Bergen County who had made complaints, and asked—"What date will suit you?" I set the date as January 14. Written invitations were sent to me and to the doctor to meet at the company's office. I accepted and was there on time. The company has not yet heard from him; I have not heard from him. Of course, I could not make an inspection when the other side was not represented. But, I could not help seeing enough in the office to refute several of the statements made by the complainants. So, I wrote Dr. Snedecor that I feared his associates were following an unwise course.

Now, understand please, I hold no brief for the Knickerbocker Adjustment Company. I have no occasion for defending them, but I do think that 90% of the talk is what Dr. Snedecor unintentionally called it—loose talk. Of all the doctors I have talked to about the Knickerbocker Company, I have yet to find one who knows what is in the contract that he signed. I am not here to defend the company. I do not care what you do to them, but I do say, please, before involving us in legal proceedings, make sure that you know the real facts about complaints from your society members.

Dr. Mulford: What is your pleasure about organization? I think you may take the liberty of selecting officers to prepare for and conduct the next meeting if the state society continues to provide for such gatherings.

Dr. Buzby: I would suggest that we definitely organize and we name for president, the man that "just has to come"; so I nominate Dr. Lathrope.

Dr. Mulford: Personally, I can see no objection to having him as you first president. We will proceed to elect. All in favor of Dr. Lathrope, please stand. (All rising.) It looks unanimous.

Dr. Buzby was then elected vice-president; and Dr. Hutchinson, secretary.

Dr. Ely: I move these officers be made the Executive Committee and that the next meeting be subject to call of this committee.

Dr. Mulford: I want to thank you all for coming here today and to assure you that the state society appreciates the effort you have made. I am positive that this meeting is going to bring forth good results.

Nothing has been said here today about legislation, and I am sorry we haven't time to discuss measures pending at Trenton. Please see your assemblymen and senators and urge them to oppose cult bills. The Woman's Auxiliary to the Burlington County Medical Society met yesterday and we asked the women to help us in this matter. I think it is within the realm of each county society to authorize its woman's auxiliary to get busy and see the assemblymen and senators with reference to pending legislation. Anyhow, get after your society president and go yourself to try and influence your representatives.

The meeting then adjourned.

Observations from the Lighthouse

BACKACHE

Medical men who served in the World War will always remember the importance of "pain in the back" as a soldier's explanation for "what ails you?" Doubtless there were many instances of genuine backache due to disease or some anatomic or functional abnormality, but, just as often, probably much more frequently, the complaint was a mask for malingering. Diagnosis was sufficiently perplexing when the soldier was honest and wished to aid in discovering the cause of such pain; it was both puzzling and serious when the applicant for treatment fell under suspicion. As most medical men are kind-hearted, the soldier usually got the benefit of any doubt—for most of us had to admit among ourselves that "if a man says he has bachache, he has"—there being generally no way to disprove his statement, however strongly he was doubted.

At the Annual Meeting of the Missouri State Medical Association in May, 1928, the scientific program embraced a symposium on backache, dealing mainly with etiology, sympomatology and diagnosis, and we herewith present abstracts of those 4 papers as published in Jour. Missouri State Med. Assoc., 25:553-567, Dec., 1928.

BACK PAIN FROM THE ORTHOPEDIC POINT OF VIEW

Frank D. Dickson, Kansas City, Mo.

Outlining orthopedic conditions met with in individuals complaining of backache, the essayist catalogues the common causes of back pain, enumerates the symptoms found in these conditions, and indicates important diagnostic feators which aid in arriving at a conclusion. He selects 7 conditions which, in his experience, are responsible for most complaints of back pain.

(1) Static or postural backache, due to improper posture, as evidenced by relaxed and pronated feet, knock-knee, hollow-back, round shoulders, prominent abdomen and long, narrow chest.

(2) Arthritis of the spine, which is of 2 types; (a) that causing joint ankylosis of the greater part of the spine; (b) the osteo-arthritic type, involving only segments of the spinal column. The resultant backache is due in part to arthritis of the joints and in part to muscle strain.

(3) Skeletal abnormalities of the spine. Congenital abnormalities exists in 35% of all individuals, according to statistics. Of these, the most common are: (a) partial or complete spondylolisthesis, in which there is a partial or complete displacement forward of the fifth lumbar vertebra on the sacrum; (b) abnormalities of the fifth lumbar vertebra, such as deficient articular processes at the lumbosacral articulation; (c) spina bifida occulta (failure of the neural ring to complete itself) of the fifth lumbar vertebra, or first sacral segment.

(4) Compression fracture of the spine, produced, as a rule, by forced flexion of the spine beyond its normal range of motion.

(5) Diseases of the spine such as tuberculosis, or Pott's disease; malignancy—sarcoma, carcinoma and Charcot spine.

(6) Scoliosis, or lateral curvature. In this condition, due to extreme spinal deformity, there is backache from muscle spasm and tire.

(7) Metabolic toxic, affections of the muscles, called usually lumbago or myositis.

The symptoms encountered are: (1) Posture of the individual, as shown by contour of the back. (2) Pain, local or referred. The referred pain is due to pressure on the spinal nerves as they pass through the vertebral foramina. Pain may be referred to the neck, shoulder and down the arm, where the cervical region is affected; involvement of the thoracic region causes intercostal and abdominal pain. (3) Muscle spasm, manifested by tension of the muscles. (4) Limitation of spinal movement. (5) Tenderness over the spinal column. (6) Finally, what is shown by x-ray diagnosis.

The statement is particularly emphasized that in no case in which backache is the complaint should a diagnosis be attempted without careful and satisfactory x-raying of the spine. Radiograms should be taken in the anterior, posterior and lateral planes, and the plates must be interpreted by one whose experience entitles him to speak authoritatively.

RELATIONSHIP OF THE GENITO-URINARY ORGANS TO BACKACHE

John R. Caulk, St. Louis, Mo.

The writer emphasizes the important part which the genito-urinary organs play in production of backache, stating that sometimes lesions of these structures may be the sole cause of this complaint.

The types of backache which the urologist encounters may be divided into (1) acute and chronic; (2) high and low; (3) unilateral or general. Most frequent of these is the low, general, chronic type. In spite of the current idea that low backache represents "kidney trouble", the kidneys really seldom contribute to a chronic low backache. With such a backache there does frequently occur urinary distress and, while the condition is not the result of kidney disturbance, it very frequently originates in pelvic structures, particulary the prostate and the seminal vesicles.

Nephralgia, either unilateral or bilateral, occasionally occurs without demonstrable mechanical or inflammatory changes. Increased capsular pressure from nephritis causes high backache. As a rule, backache is produced by a kidney condition only when drainage is interferred with, as by blocking from stone, infection or stricture, from renal enlargement, congenital or neoplastic, or from malposition. The most frequent causes of acute, unilateral, high backache of kidney origin are stone and infections. Urinary examination, with detection of blood cells, or pus and bacteria, x-ray examination, and the ureteral catheter will solve this problem. Employment of ureter catheterization in acute renal retentions from infection is urged.

Other kidney conditions productive of backache are the congenital lesions, such as polycystic, horseshoe, or ectopic kidney; such backaches have a tendency to be more central or bilateral. In renal tumors, the back pain may

result from pressure of the growth or from metastatic involvement of the spine.

Diseases of the prostate and seminal vesicles are in the background of as many low backaches as any other pathologic condition. They may contribute to the complaint in a general and a special way; in a general way by toxemia, and in a special way by pressure or adhesions with reflexions. The typical symptom of backache of prostatic and seminal vesicle origin is the low backache occurring in the early morning, often on awakening, and improving or abating as the day progresses. Carcinoma of the prostate is a frequent source of backache; and is particularly prone to have associated pain along the sciatic nerve and in the hip joint. Examination of the prostate and vesicles, not only by palpation, but by expression of secretion and thorough examination of the contents, is urged in any case of low backache. Chronic inflammatory conditions of the epididymis seldom contribute to back pain.

Neither a normal urine, nor a negative history of urinary symptoms, can eliminate the genito-urinary apparatus as the cause of backache, and a thorough urologic examination should be undertaken in any unexplained chronic backache.

BACKACHE FROM THE GYNECOLOGIC STANDPOINT

Dr. H. S. Crossen, St. Louis, Mo.

The writer gives in detail his plan for differentiating between gnyecologic and non-gynecologic backache. In the history of the case the following items are specially considered: (1) Origin; did the back pain appear in connection with some disturbance of the genital tract, such as childbirth, miscarriage, infection, operation, or was it initiated by an attack of rheumatism, tonsillitis, or by a fall or strain of heavy lifting? (2) Associated symptoms; whether accompanied by pain in the lower abdomen, bearing down distress, uterine bleeding, or vaginal discharge? (3) Progress; has the backache been continuous and uniform; has it increased in severity; are its recurrences coincident with some phase of the menstrual cycle? (4) Effect of previous treatment.

In examination, special attention is given to the following points: (1) Localization of the backache. The examining hand is slipped under the back and the different areas palpated to determine just where the pain in the back is or has been, and to discover any points that are tender on pressure. In regard to this localization of the backache the following points are considered: (a) Sacral region; backache in this region may be a diffuse aching extending all the way across the back, without definite tender spots. This is the type most likely to be caused by some intrapelvic disease. If caused by the sacro-iliac joints, there is tenderness on palpation, and irregularity of the joints. There is also aggravation of the pain on movement. (b) Coccygeal region; if the pain is said to be very low down, "at the very end of the spine", after the vaginal examination has been made a rectal examination is undertaken and the painful areas accurately localized about the coccyx. (c) Lumbo-sacral joint; this joint is prone to become weakened when the patient's nutrition is below par, especially if extra strain is placed upon the joint by faulty posture, but this diagnosis should be confirmed by orthopedic tests. (d) Midlumbar regions; there are 2 types of backache occurring at this level; one due to arthritis or other disease of the spine (in which cases the pain is largely in the center); the other due to disturbance in the muscle mass (in which case the discomfort is lateral). (e) Upper lumbar region; disease in the genital tract is not likely to cause backache localized this high.

(2) Intrapelvic examination. This will show whether there is a lesion of the genital organs, rectum or bladder. The type of backache caused by gynecologic lesions is a typical, diffuse aching across the sacral region.

Intrapelvic conditions that cause backache usually do so through production of: (a) Congestion, (b) pressure, or (c) pulling. Congestion; inflammatory lesions constitute the largest item in this class, the one exception being inflammation of the uterine cervix. Pressure; tumors, old inflammatory exudates, uterine displacements, are the conditions causing pressure on the intrapelvic structures and likely to be accompanied by sacral backache. Pulling; undue tension on structures may cause much dragging distress in the pelvis, with accompanying sacral backache. This is seen especially in relaxed pelvic floors and in uterine prolapse. Backache from these causes is usually relieved by lying down, and brought on again by activity in the upright position. Rectal lesions must also be kept in mind. Lesions in the bladder and ureters may also give rise to pelvic congestion and sacral backache.

X-RAY EXAMINATION OF THE LUMBO-SACRAL REGION WITH REFERENCE TO LOW BACK PAIN

Dr. Paul F. Cole, Springfield, Mo.

Backache is one of the commonest complaints and, etiologically considered, it is one of the most difficult to deal with. It is stated that 9% of the patients visiting one of the largest clinics in Missouri give this symptom as the chief complaint. With the dawn of radiography a new group of etiologic factors in backache was revealed and modern Roentgen ray diagnosis has thrown considerable light upon this subject, especially as regards back pain due to abnormalities of the lumbosacral region. Cole holds that it is the first duty of the roentgenologist to inform himself as to normal x-ray findings, thus securing a basis for an opinion on any deviation or abnormality. It is necessary to determine as nearly as possible just what are normal vertebras, sacrum, and articulating bones forming the pelvic girdle. It is necessary first of all to get rid of the old idea of the inherent stability and strength of the lower lumbar spine and pelvic girdle and look upon it as a particularly unstable and complicated mechanism with many rather weak points. It must be recognized that the anatomy and function of the lumbosacro-iliac apparatus is, by virtue of its connection and location, especially liable to be secondarily affected by alterations of structures surrounding and supporting it and supported by it, and, too, that many cases are associated with neurasthenia. Because of importance in the relation between congenital malformation of this region and industrial accidents, the writer predicts that sooner or later corporations employing large numbers of men will find it good business

economy to have a Roentgen ray picture of the spine of all employees, since such a high percentage of cases showing anomalies are found listed as claiming compensation.

The fact is emphasized that the value of x-ray examinations of the lumbosacral region depends upon good stereoscopic and lateral views and a good knowledge of interpretation. Many anomalies and congenital spinal defects are incorrectly diagnosed as due to injury. Fracture of the body of a vertebra or a transverse process may show few symptoms at the time of injury. Metastatic malignancies are common in the lumbar region and may or may not be productive of localized back pain. False joints due to sacralization are subject to infections and symptoms like other joints and may give rise to back pains simulating pathology of the genito-urinary tract. Sacro-iliac strain or subluxation is not definitely diagnosed by x-ray examination so long as the pelvic girdle remains symmetric; 90% of such diagnoses on any other grounds are due to faulty technic. Stereoscopic views should always be made of the sacro-iliac joints; the tube shift with the spine and not across it. A slight elevation of one side of the pelvis will always show distortion of the sacro-iliac joint. One of the most common faults in technic is the disregard of distortion. A common mistake is to include too many vertebras in a single exposure. It is well not to try to show more than 3 at a time, centering directly over the one desired.

In Lighter Vein

The Black List

Policeman: "Sir, this man is arrested for gambling and being drunk."

Accused: "Your Honor, man's inhumanity to man makes countless thousands mourn. I'm not as debased as Swift, as profligate as Byron, as dissipated as Poe, or as debauched as—"

County Magistrate: "That will do. Thirty day, and officer, take a list of those names and run them in. They're as bad as he is."

Colorful Story

A perspicacious young man, passing where an old colored man was busy setting fire to the dead grass in a meadow, accosted him thusly: Don't do that Uncle Eb; don't do that!"

"Why so, sah? Why so?"

"You will make the meadow as black as you are."

"Neber mind dat, sar," responded the undisturbed Uncle Eb, "neber mind dat. Dat grass will all grow out an' be as green as you is!"—Judge.

That's That

A Scot named MacIntosh had an argument over his taxi fare. The driver talked harshly and insulted the Scot.

"Do you know who I am?", he said proudly. "I am a MacIntosh."

"I don't care if you're a brand new umbrella. I'll have your fare!" said the driver.

Somebody Blundered

Wanted—Good Home for young male dog, almost an Airedale.—Ad in a Southport (Conn.) paper.

Current Events

AMERICAN COLLEGE OF PHYSICIANS

The American College of Physicians will hold its Thirteenth Annual Clinical Session, in Boston, April 8-12. Dr. Charles F. Martin, Dean of the Faculty of Medicine, McGill University, is President of the College this year, and Dr. John H. Musser, Professor of Medicine at Tulane University Medical School, is President-Elect. Dr. James H. Means, Jackson Professor of Clinical Medicine at Harvard Medical School and Chief of the Medical Service at the Massachusetts General Hospital, is General Chairman of all Boston Committees having charge of arrangements for the Clinical Session of the College.

The program provides hospital visits, clinics, demonstrations and ward-walks during the forenoons at 15 different Boston hospitals, and for general scientific sessions each afternoon and evening in the Assembly Room of the Hotel Statler, which will be headquarters.

A "Symposium on Deficiencies" will take place the first evening of the Session, and will be of particular interest because of the fact that deficiencies are nowadays assuming a far more wide-spread and important rôle than had heretofore been anticipated.

Another special feature is a review of the "Present Status of Vaccine and Serum Prophylaxis and Therapy", designed to give the Internist a rapid survey of the field.

The annual "Banquet" will be held Thursday evening, April 11, when Dr. George E. Vincent, President of the Rockefeller Foundation, will deliver the chief address. The "Convocation", for the conferring of Fellowships, will take place Friday evening, April 12.

Programs and details concerning reduced fares, admission, etc., may be secured from the Executive Secretary, E. R. Loveland, 133-135 S. 36th Street, Philadelphia, Pa.

REGISTRY OF LABORATORY TECHNICIANS

(Communication submitted by Dr. John W. Gray, Newark)

In accordance with the trend of the times, the practice of medicine is utilizing more and more the services of trained lay help. The advent of the laboratory as an indispensible aid to the diagnosis of disease has created a new specialty in medicine; that of clinical pathology. In order to carry on the numerous technical tests required in scientific diagnostic procedures, the laboratory director has found it necessary to train the technical personnel. With the standardization of hospitals and the urgent call for qualified laboratory assistants there has arisen a demand for proper standardization of the preliminary education and technical training of those enrolled in this new profession.

There has also been a desire on the part of those engaged in this useful calling to raise their status, similar to the evolution of the trained nurse of a generation ago. This want is now being taken care of by a national organization consisting of a body of men who are most vitally interested in elevating the intellectual and technical status of laboratory workers. The American Society of Clinical Pathologists has taken upon itself the task of organiz-

ing a Registry of Technicians with rules under which those qualified by education, technical instruction, and moral character will receive a certificate.

The subject is of interest to physicians in every field of endeavor as many of them are desirous of securing the services of technicians to carry on the routine laboratory procedures.

There is no doubt that the elevation of the laboratory technician to the status of a respected and useful calling will be a great help to the medical profession, to the patient, and to the scientific practice of medicine.

The headquarters of the Registry of Technicians of the American Society of Clinical Pathologists are located in the Metropolitan Building of Denver, Colorado.

Another very desirable feature of the Registry is the facilities it offers in finding suitable placement for registrants and in aiding physicians to find desirable applicants.

Communications

STATE WIDE DIPHTHERIA CAMPAIGN IN NEW JERSEY

F. J. Osborne,
Health Officer, East Orange, N. J.

This campaign, first initiated in April, 1927, by the State Medical Society, State Departments of Health and Education, State Tuberculosis League, and several other agencies and interested individuals, followed in June of that year by a conference at the State House called by the Honorable A. Harry Moore, Governor of New Jersey, has now reached the point where active immunization programs are being carried out. An Executive Council of 15 has met monthly during the past year to discuss plans and policies and to devise means of informing the public concerning the prevalence of diphtheria in this state, its mortality, and the simplicity and efficiency of the modern means of prevention by the use of toxin-antitoxin.

At the Governor's organization meeting in Trenton, the State Department of Health was requested to prepare a special bulletin on the technic of the immunization procedures, supplemented with suggestions for conducting clinics, and a special committee was appointed to draw up type lectures for professional groups, volunteer organizations, the general public, and for radio talks. These publications have been printed and distributed. It was further voted at that meeting that the first year of the campaign should be devoted to educational efforts. Each of the 45 delegates present agreed to have the subject put upon the program of his organization during the year and also pledged himself, or herself, to take such position and to carry out such duties in the interest of the campaign as might be suggested by the committee. All of the delegates authorized the use of their names on such committee.

Since that time, educational work has gone forward and the state has been fairly well organized. It must be remembered that the campaign in this state has been promoted to date without any funds. The various agencies directly concerned are giving large contributions of service, clerical help, and miscellaneous expense in the hope that we can demonstrate that such a campaign can be carried out successfully without a large expenditure of money and without calling upon outside experts for assistance. Let me briefly outline how this is being done:

The 3 standard lectures, mentioned before, were printed to the number of 12,000 copies by the Prudential Insurance Company of America. This company has also printed the document entitled "Procedure for Conducting County Diphtheria Campaigns". They are prepared to do other printing of a similar nature when called upon and to use their field force for distribution of educational matter. The Metropolitan Life Insurance Company has reprinted its diphtheria circular with a special New Jersey imprint in an edition of 200,000, of which 140,000 are being distributed from house to house by their agents. This company also contributed a short film on the subject for each of the 21 counties of the state and supplied a lecturer during the winter of 1927-28 who covered the entire state, and addressed more than 20 noonday service clubs. The Newark Health Department has printed 50,000 copies of the "Little Boy Blue" circular and the State Department of Health, besides putting out the special bulletin on diphtheria last fall, has turned over 30,000 copies of a special Schick Test and Immunization Circular and is planning to print, in cooperation with the State Department of Education, another edition of this circular for use in physicians' offices. The Tuberculosis League has rendered various services through its publicity and clerical departments. It was there that the "Procedure" mentioned above was first prepared and multigraphed. All news articles were sent out from that office and, as a result, its press service has accumulated a considerable quantity of clippings. The office of the State Medical Society has done much correspondence and assisted materially in keeping the campaign going through its Executive Office and the Woman's Auxiliary. The Field Secretary to the State Medical Society has addressed several county units of the Auxiliary as well as sectional meetings of the State Parent-Teachers' Association in various parts of the state.

One of the peculiar and, we think, sound characteristics of this campaign is that each of the 21 county chairmen is a carefully selected physician, vouched for by the State Medical Society, and selected not only for his standing in the profession but for his reputation for getting things done. The plan calls for the county chairmen to select a chairman in each municipality of his county and, after supplying him with a copy of the "Plan", to ask him to organize a local committee, the composition and duties of which are outlined in this document. To assist these physicians in organizing their county committees, names from the agencies represented at the Governor's conference were forwarded with the suggestion that they be used on these committees in any way that seemed best. Letters were also sent out asking that each county chairman select from his knowledge of local people in his county, persons, preferably doctors, of standing and with some knowledge of organization procedures, to serve as chairmen of local committees. It was felt that by adding these chairmen to the county group already designated as a county committee there would

be moulded into a single directing body, representatives from those organizations throughout the state having county units and the men actually directing the campaign in the local centers. Other letters have been sent to the county chairmen suggesting that they add to their committees managers of insurance companies, and members of the auxiliaries of the State Medical Society, and the health officers of the state have all been supplied with the Plan of Organization and a letter asking that they place their services at the disposal of the county and local chairmen for this work.

With the exception of 9 counties, activity has been reported throughout the state. The amount of work done varies considerably. Atlantic, Bergen, Hudson, Hunterdon, Monmouth, Ocean and Union have shown the most activity. Burlington, Cape May, Cumberland, Essex and Somerset have indicated by inquiries and requests for films, literature, and other supplies that they are preparing for a campaign. Information as to results is not yet available except that in Atlantic a county committee has been organized and 13 local chairmen appointed; in Hunterdon 17 municipalities have local chairmen appointed, and in Ocean, 12 towns are organized. Already existing agencies are carrying the brunt in several counties. In Atlantic, for instance, Dr. Salasin has turned the routine work over largely to the Tuberculosis League, as has Dr. Remer in Burlington, and Dr. Niemeyer in Hudson. In the latter county, also, the County Medical Society is standing behind the publicity campaign, as they are in Essex and other counties, and the Jersey City Health Council is lending the full force of its organization to this movement. Dr. Morrow, in Bergen, is using the County Association of Public Health Officials; Dr. Crowe, in Cape May, the County Health League; Dr. Brown, in Monmouth, the County Organization of Social Service, and Dr. Bunnell, in Ocean, the County Health Association. The Ocean County Superintendent of Schools, Charles A. Morris, is closely identified with the movement, as is Dr. Harry W. Moore, County Superintendent of Hunterdon County. Several of these counties report that fully one-half their school population has been offered diphtheria immunization, the effort in these places being to reach those sections not yet covered and to emphasize the preschool problem. Much good work has been done in many counties by the district health officers of the State Department of Health who have for many years been carrying on with the assistance of the trained personnel of the Bureau of Local Health Administration.

As so often happens, this campaign has not been all it promised at the beginning. We all know how easy it is to lend one's name to an organization when it is understood that no burdensome duties will be entailed. It is apparently about as easy to pledge the coöperation of any agency, but when the call comes for that coöperation to take some more tangible form than a mere promise, it is often found that time, personnel and funds are either fully occupied in activities more directly concerned with the problems of the given organization, or cannot, as a matter of policy, be used as had been expected. I think we should be encouraged with the special assistance afforded this movement by the organized medical fraternity. We are equally hopeful that the health departments of the state will, as the local units begin to function, be more actively concerned in this campaign which will probably return greater health dividends than any other similar activity in which we can at this time engage. As we had anticipated that a practically unlimited supply of literature, as well as posters for use on billboards, in trolleys and buses, in doctors' offices and general display would be provided by one of the largest health agencies in the state, the program necessarily slowed up when this was found not to accord with the policies of that organization. We are now endeavoring to provide these supplies by the collection of a modest fund to be used specifically for this purpose. Mrs. Percy Ingalls, of Orange, has agreed to interest a group of women in this project, and with preliminary contributions already made by certain large commercial houses in Essex County, it is believed that orders can shortly be placed for these posters.

Another most necessary factor, and one which has been recognized from the beginning, is the need for field representatives to assist the county chairmen and the local units to organize and plan a campaign and to finance the local needs. The State Medical Society has turned over to the Committee for this purpose the services of Mrs. Ethel C. Taneyhill, and we are to ask the N. J. Public Health and Sanitary Association to make a similar contribution by allowing Mr. Woolley, its Executive Secretary, to be used in this way.

It is still an open question whether state-wide propaganda work of this kind can be carried on without a paid staff equipped with ample office facilities. We still believe it can be *if everyone will do his part*, and several counties have already proved that, with a bit of concerted effort and true coöperation, a county can set up machinery to put on a diphtheria prevention program throughout its whole extent. Your state committee has now lived long enough to appreciate that this is a problem not to be solved in 1 year or even 5; that the organization when effected must be a continuing one, and we shall at all times invite constructive suggestions as how best to chart a course which will lead to complete control of this disease in New Jersey.

County Chairmen (State Campaign)

Atlantic County—Dr. S. Salasin, 511 Pacific Avenue, Atlantic City, N. J.

Bergen County—Dr. Jos. R. Morrow, Isolation Hospital, Oradell, N. J.

Burlington County—Dr. Daniel F. Remer, Mount Holly, N. J.

Camden County—Dr. Thomas B. Lee, 527 Penn Street, Camden, N. J.

Cape May County—Dr. A. C. Crowe, Ocean City, N. J.

Cumberland County—Dr. Leslie E. Myatt, 98 Pearl Street, Bridgeton, N. J.

Essex County—Dr. Charles V. Craster, Health Department, Newark, N. J.

Gloucester County—Dr. L. Warner Knight, Pitman, N. J.

Hudson County—Dr. Charles A. Niemeyer, 4610 Boulevard, Union City, N. J.

Hunterdon County—Dr. A. J. Coleman, Clinton, N. J.

Mercer County—Dr. A. S. Fell, 529 East State Street, Trenton, N. J.

Middlesex County—Dr. John H. Rowland, 159 State Street, New Brunswick, N. J.

Monmouth County—Dr. Harvey S. Brown, Freehold, N. J.

Morris County—Dr. Wm. F. Costello, 55 West Blackwell St., Dover, N. J.

Ocean County—Dr. Frederick N. Bunnell, Barnegat, N. J.

Passaic County—Dr. John Ryan, 158 Lexington Avenue, Passaic, N. J.

Salem County—Dr. David W. Green, 69 Market Street, Salem, N. J.

Somerset County—Dr. Lancelot Ely, Somerville, N. J.

Sussex County—Dr. Blase Cole, Newton, N. J.

Union County—Dr. Arthur Stern, 224 East Jersey Street, Elizabeth, N. J.

Warren County—Dr. G. Homer Bloom, Phillipsburg, N. J.

As we predicted in the December Journal, the Christian Science factional fight is warming up. The following is taken from the New York World of January 19, 1929:

MRS. EDDY'S LIFE STORY REVISED ON CLAIM SHE USED DRUGS

Dittemore, Formerly of the Mother Church, Accuses Trustees of Her Will

John V. Dittmore, of Washington, a former director of the Christian Science Mother Church in Boston, and now associated with Mrs. Annie C. Bill of London in directing the Christian Science Parent Church, gave out yesterday in New York correspondence between himself and the trustees under the will of Mary Baker Eddy, pertaining to Mrs. Eddy's use or non-use of medicine and doctors.

In making the correspondence public Mr. Dittemore maintained that the trustees in Boston had given in to his demand that the authorized life of Mrs. Eddy, by Sibyl Wilbur, be revised to accord with facts which hitherto have been denied by the directors of the Mother Church.

Mr. Dittemore maintained in his correspondence that memoranda and diaries still existing prove conclusively that Mrs. Eddy resorted to drugs (medicines) and doctors. The first letter which he gave out is dated Dec. 29, 1923, and refers to the following excerpt from Sibyl Wilbur's official biography of Mary Baker Eddy:

"On Friday she arose and was dressed and remained for almost the usual hours in her study. . . . She retired to her bed that night not to rise again in this world. . . . She was conscious that her students were opening their minds to the realization of Life; this conscious thought was, as it had been for fifty years, her great and only physician."

"As you well know," wrote Mr. Dittemore, "Mrs. Eddy employed physicians professionally, and took drugs on numerous occasions during the last ten years of her life.

"As trustees of Mrs. Eddy's estate, you have placed or caused to be placed, thousands of copies of this volume in public libraries throughout the world. Thus, through the use of Mrs. Eddy's trust fund, you have misled the public regarding facts, the truth of which it is essential to make known in order for her life work to be understood.

"In the name of thousands of Christian Scientists, I protest against such use of the funds and authority vested in you under Mrs. Eddy's will and demand that these misleading volumes be recalled, and no further publication of this book be made until the misrepresentation is deleted."

The reply letter given out by Mr. Dittemore dated Jan. 9, and signed by H. A. T. Dow, corresponding Secretary for the trustees, reads:

"The sentence partly quoted in your letter (concerning Mrs. Eddy's 'great and only physician') is to be revised so that there can be no question as to its being in accord with the facts. It can be and probably would be correctly construed as it is. You found no fault with the statement in question during the five or six years from 1913, when you shared the responsibility for it. Nevertheless, it is to be revised so that it cannot furnish either an occasion for misapprehension or a pretext for controversy."

Explains Lapse in Inquiry

In answer to this letter, under date of Jan. 14, Mr. Dittemore requests to be informed relative to what steps the trustees are taking "to withdraw the book from libraries" and says, in part:

"You refer to my having found no fault for a number of years with the false statement in question. I had not then recognized the fatal mistake in not examining into the cause which impelled Mrs. Eddy to have recourse to medical aid and its direct relation to the orderly unfoldment of Christian Science. Therefore the specific untruth in the Wilbur book had escaped our notice until it was brought into the public press by your own Publication Committee.

"Although the facts of Mrs. Eddy's use of drugs have been known to at least the majority of your board for many years, you have continued systematically to place enormous numbers of this book in public and private libraries and in other institutions throughout the English-speaking world, and translations of it in France, Germany and elsewhere.

Alleges Fraud on Thousands

"Such action constitutes a fraud on hundreds of thousands of persons, and you have decided to 'revise' the book only when the facts are disclosed and your misuse of trust funds exposed and challenged."

Attempts to reach Clifford P. Smith, head of the Publication Committee referred to, by telephone to Boston last night, were unavailing. Hence there was no further reply from the trustees or other authority representing the Mother Church to the charges leveled by Mr. Dittemore, whose action was coincident with a plea by Sir Henry Jappe of London, for cooperation between Christian Science and the medical fraternity.

Sir Henry Jappe, who lectured in the Conservatory of Music at Englewood, N. J., is a lecturer for the Parent Church, led by Mrs. Bill.

"While Mrs. Eddy lived," he said, "the progress of her church was phenomenal. The effect of her death was the leaving of the central office of inspiration and authority vacant."

Mrs. Bills, he said, had filled this vacancy, opening up a new phase of Christian Science and "discovering the universal design of life."

Boston Officials Are Reticent on Dittemore's Statement

Special Despatch to The World

BOSTON, Jan. 18.—H. A. T. Dow, Corresponding Secretary of the trustees, under the will of Mary Baker Eddy, admits receipt of two letters from John V. Dittemore, one protesting against a statement in Sybil Wilbur's life of Mary Baker Eddy to the effect that the mental and spiritual form of treatment which Christian Science teaches had been Mrs. Eddy's only physician, when in reality, Dittemore charges, she employed physicians and took drugs for the last ten years of her life, and second demanding that they let him know what they intend to do about the book.

Dow refuses to say anything further than that the trustees are "considering" Dittemore's second letter and is very indefinite on the questions of Mrs. Eddy's alleged use of physicians and drugs.

"The trustees' letter speaks for itself," he said. "We do not specifically deny the statement about the physicians."

He adds that the book referred to is not controlled by the trustees, but is copyrighted and published by the Christian Science Publishing Company.

Lay Mirror Reflections

NEW TRAINING FOR MEDICAL STUDENTS

(N. Y. Times, Jan. 3, 1929)

Dr. Edward H. Hume of the New York Post-Graduate Medical School told the Pan-American Medical Asociation the other day that an occasional period of study after practice had been established as necessary to keep up with the progress of medicine. It is only a few years since the young doctor with his diploma felt that he knew the basic principles of medicine and surgery. He kept up a rather uncertain amount of reading, but almost never did he drop his profession to enter school again for a short term.

Changes in the form of the undergraduate curriculum are being made now in many places to make sure that the student will adopt the more progressive attitude. More freedom is given for reading, thinking and leisure. The student has more responsibility for his own training and development. He is educated in methods of study rather than in certain subjects. The choice of classes is left to him, and he is permitted to spend more time on some than on others.

Dr. Hume gives the credit for the improvement to the general public. He believes that communities everywhere are demanding better doctors. People are learning more of preventive measures, and insist on the service of practitioners who are open-minded and continually learning.

MEDICAL PROGRESS

(Editorial in N. Y. Times, Jan. 9, 1929)

It would be pleasant if looking back over the past year's advance in medicine one could see clear signposts indicating discoveries for the cure of all the ailments against which science has been contending. Progress has resulted from the year's labors but the New York Academy of Medicine reports that there have been no epoch-making discoveries. It is particularly difficult to point to the precise moment when any great medical discovery is made. It is as true as in other lines of research that each man builds on what his predecessors have done, and that credit given to one person should more reasonably be distributed among many. But at least the discoveries outside of medicine have the advantage of being quickly proved. The testing of medical discoveries involves hundreds of cases and requires many months. Perhaps some things dug out this year will be tried, questioned, altered and finally corroborated 5 years hence. Medical research necessarily is lacking in the spectacular.

Though it moves thus tentatively and by a series of suspended judgments, it nevertheless does move. In 1928 substantial progress was made in the treatment of a number of infectious diseases in methods of anesthetizing, in accident surgery, in heart disease, cancer, gynecology, sinus trouble and pernicious anemia. Everybody, not excepting the butchers, knows about the use of liver for all forms of anemia. Iodized oil has been found useful in the diagnosis and treatment of diseases of head sinuses. For some reason they seem to have grown more common in recent years, and not only because they are extremely painful but because they set up conditions leading to other trouble people are glad to know that relief is in sight.

In connection with experiments in killing cancer or tumor cells x-rays and radium have been studied. It has been established that the wave length is of no consequence, the selection now depending only on the distance of the cell from the surface and on its sensitivity to radiation. Cancer of the skin occurs most frequently among persons exposed to excessive sunlight, and experiments with ultra-violet radiation confirm the suspicion of scientists that in certain cases the lamps now so popular for home use may have dangerous results. The information bureau of the Academy of Medicine warns against the indiscriminate use of ultra-violet radiation lamps by the public. It points to the history of the x-ray, which when discovered was carelessly employed and led to many deaths and which "should serve as a warning in the case of the ultra-violet radiations".

Emergency treatment for industrial accidents has advanced greatly. Immediate attention for accident cases, especially in fractures is the ideal, and hospitals are being staffed so that a broken bone will receive treatment as speedily as that accorded a ruptured appendix. A new method of relief for the burns which result frequently in industry has been found. A year or two ago, if a third of the skin was burned doctors conceded that death must follow. It was caused by the absorption of poisonous waste from the burned skin. Now tannic acid in solution is applied. It coagulates the proteins, absorption is diminished and recovery becomes possible.

MILK COMMISSION DESERVES SUPPORT IN A GOOD FIGHT

(Editorial, Newark Evening News, Jan. 17, 1929)

Strong words, but not one whit too strong, are used by the Essex County Medical Milk Commission in denouncing a reported widespread movement on the part of dairy interests to employ the word "certified" in labeling a pasteurized milk. Since pasteurization and certification of milk, when each is properly understood, can no more be made to mix than oil and water, a "pasteurized certified milk" is designated in the commission's resolution as "a misbranding and falsification, a misuse of the word "certified" and a fraud upon the public.

Certified milk, properly so-called, is the last remaining stand, in large city milk supplies, of raw milk. That raw milk is a necessary thing is sufficiently explained for the well informed by Dr. Elmer G. Wherry's statement for the commission that pasteurizing milk destroys valuable vitamins. While the older child and the adult, using a varied diet, can do without this source of these vitamins, because they are supplied in such a diet from other sources, the infant is practically dependent upon the vitamin-rich raw milk. And what is known as certified milk, when produced and marketed under proper medical supervision, is vitamin-rich raw milk safeguarded against the infections and deterioration which pasteurization is employed to overcome in general milk supplies.

Essex County, through its Medical Milk Commission, has a duty to perform in maintaining the standards for certified milk. Dr. Henry L. Coit, in introducing milk certification through the first Medical Milk Commission set up in this county, gave to the world a product providing an indispensable safeguard of babyhood.

The hundred commissions which have been modeled on that of this county, should rally to the defense of the movement and the product. The medical profession and an enlightened public opinion should support them. Protection of infants and invalids against the loss of a protected special milk supply is not a commercial but a public health question.

MOVIETONE IN MEDICAL SCHOOLS

(New York Times, Jan. 27, 1929)

The use of motion pictures in connection with medical instruction is not new. The New York Medical School has gone a step further and has made movietone color pictures an aid in teaching surgical technic to its students. The films show a surgeon performing operations and at the same time record his voice as he lectures.

It is said that in many cases the instruction and demonstration by movietone is more effective than the clinic and operating room lectures. The obvious advantage of the movietone teaching is that it can be given at any time, any place and before almost any number of people. There is no need to consider the convenience of doctor or patient. Unusual and difficult operations can be shown time and again before different groups of students, and classes in remote schools can profit by the latest achievements in modern surgery.

The Woman's Auxiliary

In the November issue of the Virginia Medical Monthly, the reported proceedings of the Woman's Auxiliary contained references to addresses made by Dr. Morris Fishbein, Editor of the A. M. A. Journal, and by Mrs. Fishbein, touching upon subjects of considerable interest to our medical society organization, and as applicable to many other states as to Virginia. From that Journal we quote the following:

"The President introduced Dr. Morris Fishbein, of Chicago, who said that when the women take an interest in the State meetings, the meetings of the men are always successful. He also said that the women must help educate the public along health lines and that they could especially do this in their clubs by expressing how physicians feel on certain matters concerning health. He said that a big problem is to have parents as well informed as the children, who are taught public health in the schools."

"Mrs. Fishbein also made an interesting talk. She said that physicians' wives should be well informed so that they could help educate the public. One of the best ways the wives could do this would be to go to meetings of the Woman's Auxiliary and hear papers on the medical profession. She suggested that Auxiliaries could entertain the Medical Dames, nurses and school teachers. Mrs. Fishbein also suggested that the Auxiliaries should have lectures to which the public would be invited."

That our auxiliary members can help very materially in education of the public has been clearly proved in a few counties where the local organization, or some one active member thereof, has gotten a series of engagements for our Field Secretary to address clubs and schools. If this can be done in counties like Atlantic, Somerset and Sussex, there is no apparent reason why it may not be done in all the other counties; no apparent reason save lack of energy. Let every member of every county society auxiliary, get busy on this one proposition and secure at least one appointment for the Field Secretary or for some representative of the medical profession to address a lay organization upon some medical problem. There should be little difficulty in doing this for each one of you has influence enough with some social club, Parent-Teachers' Association, or public school administrator to secure an engagement; all that is required is sufficient initiative to go and talk with the person in a position to make such an arrangement.

The point made by Dr. Fishbein, that parents need to be as well informed as their children, is an important one. Few adults realize how much regarding hygiene and public health is being taught today in the public schools; even in the lower grades. We doubt the ability of the younger children to understand some of it, and in some instances there may be just reason for criticism of the manner of teaching, but the fact is that the teaching is being done and that the children are passing the parents in knowledge of healthful living and the means of preventing disease. No one would propose to arrest teaching of the children; such teaching had much better be improved and increased. Solution of this problem lies rather in extending education to the parents. Paying a social visit

one evening this week we heard a 10 yr. old girl preparing her next day's lessons and discussing with her father the relative food values of carbohydrates, proteins and fats; the importance of a balanced diet; and the usefulness of vitamines. The child did not understand, really, all that she rattled off so glibly, but the facts were planted in her young brain and time will clarify the understanding. We could not help thinking at the time that we knew many reasonably intelligent adults, and not a few physicians, who are not so well equipped as that child with facts concerning the food upon which they rely for life itself.

Here is work for those auxiliaries that have been asking for work; let them first secure a speaker to address one of their own meetings and instruct them concerning food elements and their effect upon the human body; then, arrange for public meetings where the same or other speakers may have an opportunity to disseminate such information to the public. There are a sufficient number of topics bearing upon food, its component elements, its digestion, physiologic action, and its dangerous reaction when abused, to keep any auxiliary or county medical society busy for many moons.

Mrs. Fishbein's recommendation that auxiliaries hold lecture meetings to which the general public should be invited can be adapted very well to this proposition. Of course that applies to many other subjects than food, and any active secretary can suggest topics that will be of interest in her own community.

Atlantic County

(Reported by Mrs. Maurice Chesler)

The Woman's Auxiliary to the Atlantic County Medical Society met Friday evening, February 8, in the Blue Room of the Chalfonte Hotel. After a brief business meeting presided over by Mrs. Samuel L. Salasin, the auxiliary was honored with the presence of Mrs. E. C. Taneyhill, who gave a very vivid and interesting talk on "The Life of Pasteur", illustrated with lantern slides by Miss Jean Taneyhill. The program was well received by the 41 student nurses from the Atlantic City Hospital who were present in addition to the regular members.

The Auxiliary can now boast of having passed the first stepping-stone toward a financial footing. Mrs. Milton S. Ireland headed the committee in charge of a Public Card Party given Monday afternoon, February 11, in the Music Room of the Chalfonte. The response and cooperation of the committee and members made it possible to realize the sum of $274.25 from this affair. This money will create a fund to be used toward equipping the Children's Ward of the Atlantic City Hospital. Those assisting Mrs. Ireland were: Mrs. Samuel L. Salasin, Mrs. E. H. Harvey, Mrs. W. Blair Stewart, Mrs. Joseph Poland, Mrs. Samuel F. Gorson, Mrs. Robert A. Bradley, Mrs. Lawrence A. Wilson and Mrs. Maurice Chesler.

Burlington County

(Reported by Mrs. Wm. C. V. Wells)

The Woman's Auxiliary to the Burlington County Medical Society held a meeting Friday afternoon, January 25, at the Y. W. C. A., at Burlington.

Plans were made to assist the Burlington County Hospital with its sewing; to aid in the antidiphtheria campaign of the state, and to take an active interest in the medical Bills which are coming before the State Legislature during this session.

The auxiliary decided to hold regular meetings on the second Monday in the months of October, January, March and May; officers to be elected in October.

Mrs. George Orton, President of the State Auxiliary, attended the meeting and suggested various things that the auxiliary could do in order to develop usefulness.

Mrs. Orton suggested that "Hygeia" was really the first thing to be taken care of. Hygeia contains very valuable information for the public and if we see that it is placed in every available reading room and library the people will learn to want it and probably subscribe to it themselves.

After the meeting the auxiliary was entertained at "Tea" at the home of Mrs. E. R. Mulford.

Dr. Mulford, President of the State Medical Society, was present. He called the attention of the auxiliary to the medical Bills before the Legislature and asked that the members use their influence and call the attention of our assemblyman and senator to the specially vicious Bills—A. 25 and S. 44—presented to the State Legislature by Assemblyman Pierson, of Essex County, and Senator Chandless, of Bergen County.

Since Burlington County is so large and covers such an extensive territory, the auxiliary has been divided into four groups, having a captain for each group, thereby accomplishing more easily the work decided upon at the regular county meetings.

The 4 divisions are: Mount Holly with Mrs. Remer as Captain; Burlington, Mrs. E. R. Mulford, Captain; Riverside, Mrs. Downs, Captain; Moorestown, Mrs. Ulmer, Captain.

A meeting of the Captains was held at the home of Mrs. R. Haldeman on February 6 and the Captains received instructions how to make the dressings and supplies to take to their groups. The Captains plan to have their groups meet once a month.

The Burlington Division has planned to hold a card party, the proceeds to go to the placing of "Hygeia" in the most prominent points under the jurisdiction of that group.

Mrs. Barbara Small entertained the Riverside Division of the Burlington County Auxiliary on Tuesday afternoon, February 19. Those present were Mrs. R. I. Downs, Mrs. Walter Zwick, Mrs. S. R. Maul, Mrs. W. C. Wells, Mrs. Edward Hunter and Mrs. John Stinson.

It was also decided that any urgent messages, coming from the State Headquarters or from the President of the county, may be relayed from the Secretary to the Captains and they in turn can notify the members of their own group.

Essex County

(Reported by Mrs. George A. Rogers)

The Woman's Auxiliary to the Essex County Medical Society held a meeting on Monday, January 28. After a short business session the afternoon was devoted to cards. The Chairman of the Entertainment Committee, Mrs. Louis Schneider, assisted by Mrs. E. D. Newman, ar-

ranged delightful entertainment both regarding prizes and refreshments.

The program for the next meeting was announced as an illustrated lecture on the "Life of Pasteur", by Mrs. E. C. Taneyhill.

Within the last week every member and everyone on the eligible list has received an appeal to write to the legislators urging opposition to two Bills "Assembly 25 and Senate 44". The opportunity was taken to urge those not already enrolled as members to do so in order to be ready for occasions like this when the cooperation of everyone interested in the medical profession and public welfare is needed.

Hudson County

(Reported by Mrs. Harry J. Perlberg)

The regular meeting of the Woman's Auxiliary to the Hudson County Medical Society was held February 15 at the Y. W. C. A. Mrs. William Friele, the President, was in the chair. Mrs. Taneyhill, the State Society's Field Secretary, who was prevented by illness from speaking at the December and January meetings, is to talk on "Pasteur" at the regular meeting to be held on March 15. Mrs. Taneyhill is a most interesting speaker and it is expected that there will be a large attendance to welcome her.

The Chairlady of the Card Party Commmittee reported that the affair held last month was a marked success, both socially and financially. Over $200 was realized for a fund which is to be used for some type of organization work, the exact nature of which has not as yet been definitely decided upon; it will be in some type of charity; various plans are under consideration.

The society plans to have another "Play Day" similar to that of last year when a pleasant day at golf and cards was enjoyed by a large number of members and their guests at one of the country clubs. A golf tournament is under consideration as many of the ladies are adepts at this game. A number of new members were welcomed at this meeting. The organization is rapidly growing and the hundred mark will soon be passed. The usual social session followed the business meeting.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The February meeting of the Atlantic County Medical Society was held on Friday, February 8, at 8:30 p. m. in the Hotel Chalfonte, with President Joseph Poland in the chair.

The report of the Secretary was read and approved as read.

Dr. Weinberg's application was referred to the Board of Censors.

The following were appointed Delegates to the Cumberland County Society: C. Coulter Charlton, Milton S. Ireland and Walt P. Conaway.

Dr. Stewart real a letter from the Visiting Nurses' Association: "Further regarding the Mental Hygiene Clinics, we have received information from Mr. Cressman that there are 2 special classes in the county schools, but he did not give the number enrolled; and from Miss Quinn, Special Teacher for Atlantic City, that there were about 150 in the classes here, and approximately 20% would be benefitted by such a clinic".

Dr. W. Blair Stewart spoke on the Osteopathic Bill now before the State Legislature; an attempt to give osteopaths, chiropractors and naturopaths the power to practice minor surgery, in fact, to do almost anything that regular practitioners can do. He also spoke on the bill introduced by Senator Chandless which proposes to allow osteopaths to practice minor surgery and obstetrics and to use anesthetics; and also gives them the right to issue medicolegal certificates. Dr. Stewart also spoke of the unsanitary practice of allowing dogs to commit nuisances on the Boardwalk. He suggested that the city authorities be asked to take some action in this matter, probably in the form of an ordinance.

Dr. Salasin said that there was a city ordinance passed several years ago relating to dogs; providing that all dogs were to be vaccinated against rabies, but the S. P. C. A. and others protested so vigorously that this order was rescinded and there are now no regulations. At present the rabies situation is becoming serious; the number of cases has increased 300% in 5 years. The town is over-run by dogs, most of them unlicensed.

Drs. Barbash and Andrews said that they had attended a hearing on this ordinance and that the S. P. C. A. had a professor of the Veterinary School of the University of Pennsylvania who said that antirabic vaccine was of no use in preventing rabies in dogs and that rabies was not a serious disease anyway.

Dr. Salasin made a motion that the society go on record as being absolutely opposed to House Bill No. 25 and Senate Bill No. 44, concerning irregular practitioners. Seconded and carried.

Scientific Program

The first paper was read by Dr. Clyde M. Fish, head of the Atlantic County Tubercular Hospital, on "A New Method of Outlining the Arch of the Aorta".

The use of auscultatory percussion in outlining various internal viscera is no new procedure. In 1840 G. P. Camman and Alonzo Clark published in the New York Journal of Medicine and Surgery an article entitled: "A New Mode of Ascertaining the Dimensions, Form, and Condition of Internal Organs by Percussion". Various other observers, including Roussel, de Mussey, Zuelzer, and, according to Weil, even Laennec and Piorry have called attention to the facility with which organs and morbid growths can be differentiated by the stethoscope applied to one side of the chest while percussion is carried out by an assistant on the opposite side. Weil speaks slightingly of the method and declares that, as a rule, it offers no special advantages. Loomis and Page mention the procedure on the authority of Camman and Clark; but all these writers refer to the subject as if at second hand, as though they had failed to give it personal investigation. It is, therefore, not surprising that the active members of the medical profession are, for the most part, either wholly unfamiliar with the practical application of auscultatory percussion, or, in isolated instances, only use the method when some accident of experience has illustrated its value.

This method was first practiced in the Phila-

delphia General Hospital (Blockley) in 1896, by the late Dr. Frederick A. Packard, then Visiting Physician to the Philadelphia and Pennsylvania Hospitals. Serving as Packard's resident physician, I was invited to work with him in perfecting this method. Stengel, in 1897, described accurately Compte's method of stroking the skin, stating that he had been using auscultatory percussion in the outlining of solid viscera for a period of 5 years and regarded it as a most valuable method.

Probably the earliest article referable to auscultatory percussion in pulmonary disease was published by DeMissel, in 1876—"Auscultatory Pletessimetrique". In 1897 and 1898 Boston began to modify Packard's original technic, and used the tuning fork and different makes of stethoscopes for recognition of pathologic states of the air-containing viscera. Writing in the Medical Journal and Record, October 15, 1924, he says: "I have found that the various modifications of auscultatory percussion and auscultatory palpation, when properly employed, give data regarding the size of both solid and air containing viscera not equalled in clinical value by any other known diagnostic method; and only approximated by Roentgen ray findings. In a study of the lungs, auscultatory percussion and auscultatory palpation provide data far more reliable than the roentgengenographic records."

In 1914, Anders and Boston (Diagnosis) gave the question liberal consideration: "This physical method combines percussion with auscultation by means of the stethoscope, and is by far the most practical method for the outlining of various diseased portions of the lung, and for ascertaining the size of solid viscera."

Sewell, of Denver, writing of the method, says: "Most descriptions of the findings of stethoscopic percussion enter so fully into the pitch and quality difference of sounds elicited by percussion of various organs as would manifestly need for their appreciation such a musical cultivation and training in the physics of acoustics as might well discourage the student in medicine from attacking so cumbersome a method. My own work has been done with the simplest form of binaural stethoscope. The diameter of the bell for applying to the body is but 5/8 in. at its mouth, so that it can usually be inserted between the ribs of a patient."

Working with this method during the last 3 years, we searched for methods to eliminate this difficulty in determining the pitch and quality of the percussion note, and finally found by accident that use of the rubber tube instead of the bell of the stethoscope would eliminate all adventitious sounds; the end of the tube being laid flat on the skin and held there by a finger. In outlining the arch of the aorta, the rubber tubing should first be placed in the third left intercostal space close to the sternum. Then, by light percussion, the width of the arch as it crosses the sternum can be outlined. By then changing location of the rubber tubing, placing it over this outlined area, the rest of the arch can be mapped out. The general practitioner will be amazed at the simplicity of the method.

Most men in using auscultatory percussion have compared sounds outside the organ to those over the organ. It is much simpler to have no sound outside the area to be outlined, either by light percussion with the stethoscope bell or with the rubber tube.

Dr. Roy D. Adams, Clinical Professor of Medicine in Georgetown University spoke on "Chronic Pulmonary Disease".

Dr. Adams' paper concerned work done in the United States Veterans' Bureau Diagnostic Hospital, at Washington, D. C., for study of patients who have been hospitalized previously in regional offices; 25% of these carried admission diagnoses of pulmonary disease, while the diagnoses upon discharge reached 45%.

The paper was concerned chiefly with the etiology of error in chest diagnosis, the reasons summarized as follows: (1) Failure to get a good history; (2) incomplete and careless physical examination; (3) misuse of the laboratory; (4) failure to properly utilize x-rays; (5) failure to correlate history, physical examination, symptoms and laboratory findings to the end of constructing a clinical picture.

Concerning history, he spoke of the importance of finding out if the patient suffered from upper air passage disease, particular by sinus infection. Sometimes striking amelioration of the pulmonary condition follows a clean-up of the upper air passages.

Errors in physical diagnosis may be attributed to the following reasons: (1) Lack of familiarity with the normal chest; too much importance attached to unimportant signs; (3) too much significance attached to a single sign; (4) too many signs required for a single case; (5) failure to carry our fundamental procedures.

Dr. Adams believes that the laboratory would serve its best purpose if employed less frequently and more selectively. One cannot escape the conclusion that physicians look hopefully to the laboratory to make diagnoses for them, but the laboratory report is only a part of the clinical record. The roentgenogram best serves its purpose when read and interpreted by the clinician as a part of his clinical study. Sound diagnosis is made by beginning with the history, adding symptoms, then the physical examination and finally, the laboratory. Then, and then only, are we in a position to correlate facts and draw conclusions.

Discussion

Dr. Philip Marvel, Jr., said that he has used Dr. Fish's method and that he agrees with him as to its importance. In discussing Dr. Adams' paper, he stressed the importance of careful examination of the chest and of history of upper air passage infection in these cases. We see it in cases of grippe continuing after the chest condition has cleared up.

Dr. Clarence L. Andrews spoke in appreciation of Dr. Fish's paper, and said that Dr. Adams' paper had given new food for thought. He spoke of the relation of sinus and chest conditions, particularly asthma, and asked Dr. Adams if he considered loss of weight an evidence of activity in tuberculosis.

Dr. Samuel Salasin spoke about errors in diagnosis of chronic pulmonary conditions, as brought out in Dr. Adams' paper. In private practice we cannot control our patients as in army hospitals; we see them only occasionally; we are unable to make the detailed examination that is possible in army hospitals.

Dr. Robert Kilduffe spoke of the necessity for intelligent selection and interpretation of laboratory examinations; for the past 15 years the clinical pathologist has been saying the same thing that Dr. Adams said in his paper concerning the fact that the laboratory report is not the whole of

diagnosis. He also said that clinicians do not always know how to interpret laboratory findings, and spoke of the importance of frequent consultations between clinician and clinical pathologist.

Dr. Stalberg spoke of the importance of knowing the position of the trachea and diaphragmatic excursion in diagnosing tuberculosis.

Dr. Stewart spoke of the advantages of quiet rest at Atlantic City to aid nature in healing tuberculosis and sinus infections. He asked Dr. Fish if his new method would explain certain obscure râles. He also asked if he could use a plug, in place of his finger, in the rubber tube of the stethoscope.

Dr. Fish, in closing the discussion, said that he had tried a lead pencil in the tube of the stethoscope but with poor results. He believes that auscultatory percussion can differentiate between a friction rub and a râle. As concerns pericardial conditions, it is possible to outline the ventricle and myocardial wall but you cannot tell the difference between the width of the wall and the same space due to pericarditis.

Dr. Adams, in closing, said that he was very much interested in Dr. Fish's method and intends to learn more about it. He thinks that failure in the past has been due to lack of refinement in the method; he wondered if transmission of sounds is along the solid wall of the stethoscope or through the column of air enclosed. As regards the matter of weight in tuberculosis, individuals vary; some patients lose weight rapidly, others with rest and food gain weight; it probably depends on the individual's reaction to toxemia and while important it is only one of the symptoms of the disease. He agreed with Dr. Kilduffe concerning the proper relationship between laboratory and clinical findings.

General Staff of Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The scientific monthly meeting of the General Staff of the Atlantic City Hospital was held February 1, 1929, the meeting being called to order by Dr. D. Ward Scanlan, President, at 8:30 p. m.

Dr. Harry Subin, Assistant to Dr. David B. Allman, Chief of the Surgical Service, reported the service for 3 months, August, September and October, 1928.

A total number of 308 patients were admitted to the wards; in 1927, over 400 were admitted on this same service. In 1928, there were 170 operations, as against 162 in the service of 1927; 221 were discharged as recovered in 1928, while there were 342 in 1927. The number of deaths was 21 in both 1927 and 1928 services.

Unquestionably, a great deal of information could be derived from a discussion of statistics of the various services, but in so much as this part of the service is gone over in every report and statistical résumé is not the sole purpose of a report, I choose instead to present a few of the more important cases for your consideration.

Diagnosis

One evening in October, 1928, a young man about 25 yr. of age was out on a beer drinking party. His history, corroborated by his brother, was to the effect that after drinking beer for several hours he started home about 2 a. m. At Pennsylvania Avenue near the Boardwalk, he and one of his companions decided to run a race to Pacific Avenue. Just before reaching Pacific Avenue he tripped and fell on his face. He described his position as follows: "My left hand was bent across my stomach when I fell". It knocked the wind out of him but he got up and walked to the Malatesta Hotel, 2 blocks away. He then undressed and went to bed, but soon afterward complained of pain in his stomach. One of our staff physicians, a Dr. Walker, made a tentative diagnosis and advised patient's removal to the hospital at once. The patient refused and his brother and father procrastinated, so it was not until that afternoon, and then only upon the persistance of Dr. Walker, that the patient was brought to the hospital.

The physical findings at this time were pain in the upper part of the abdomen, tenderness on pressure over the left hypochondrium and epigastrium. Some rigidity and some muscle spasm of these regions, and pain on pressure posteriorly in the region of the twelfth rib. No edema, discoloration, swelling in the flanks, nor mass palpable on bimanual examinations. A working diagnosis was established within a half hour after admission. The family was urged to sign permission for operation, but stubbornly refused. The patient himself insisted that he felt better from time to time, in spite of the fact that no narcotics had been administered. A couple of hours elapsed during which time 2 blood counts and a urinalysis were made. The blood counts read as follows: (1) R.B.C., 4,920,000; W.B.C., 19,900; Hgb. 80%; Polys. 82%. (2) R.B.C., 3,870,000; W.B.C., 28,-300; Hgb. 80%; Polys. 78%. Both urines showed blood.

It was plain to be seen that the patient's condition was growing worse. Appreciating the urgent need for operative interference, the chief having previously examined and substantiated the diagnosis, again came to the hospital. This time he minced no words in telling the family that their delay in not granting permission for operation had already forfeited the patient's life. Although still conscious, and still maintaining that he felt fairly good, patient admitted that the pain in his back was becoming a little worse. More debating, more delay, and finally the patient was operated upon at about 10 p. m. Findings revealed a complete bisecting laceration of the left kidney, with abundant clotted blood in the posterior peritoneal cavity. The patient died several hours after the operation.

This case illustrated that even though a diagnosis as difficult as that of ruptured kidney resulting from such a slight accident was made early, death may result from delay in securing consent for operation; and it further illustrates the necessity for making one's opinion as to the outcome, very clear in the minds of the patient's family, so that if they choose to disregard the advice they will at least bear the burden of the catastrophy upon their own shoulders instead of blaspheming the institution for the rest of their days.

Injuries to the kidney are not as uncommon as generally supposed. Many mild lacerations pass by unrecognized. Severe injuries to the kidney *per se*, however, are uncommon. Keen says:

"Although wounds of the kidney are comparatively rare, they were fully recognized and described by writers of antiquity. Injuries of the kidney may be divided into 2 groups: (1)

Subparietal injuries; (2) penetrating wounds, with the subdivisions of incised, punctured and gunshot."

Subparietal Kidney Injuries. These occur in men very much oftener than in women. Of 299 cases recorded by Kuster, 281 occurred in men. According to this authority, an injury in the loins tends to produce a contusion, or often a rupture; whereas in women, mobility of the kidney is more likely to result. It seems more probable, however, that the proportion given by Kuster is really explained by the greater frequency with which men are injured. Injury of the kidney is, as a rule, the result of direct violence. In rare instances both kidneys are hurt. Violence or falls from considerable heights without direct injury may produce rupture of the kidney. The manner of production of the injury varies in different cases, and where the injury involves the lower ribs, there is little question but that the kidney is caught and crushed between the vertebral column and the ribs. Kuster has shown by experiment that a comnion cause of rupture is hydraulic pressure acting through the full vessels and pelvis, causing the kidney to burst. Experimental work bears out the theory of the effectiveness of hydraulic pressure in the production of the ruptured kidney. It cannot explain the cases in which the kidney is torn across near its pedicle nor the wounds that involve the cortex and fibrous capsule only.

Injuries of the kidney are, of course, often complicated by other lesions, such as fracture of the ribs, of the spine, and rupture to other abdominal viscera. Thus in 12 out of 17 deaths from kidney injury collected by Keen, such additional injuries were found. Our case in question presented rupture of the kidney *per se.*

Symptoms. These may be divided into general and local, primary and secondary. The primary general symptoms are those common to severe injuries in general, shock and severe hemorrhage. But often in extensive ruptures shock may be long delayed or entirely absent. Patients have walked long distances and continued work for some time after sustaining severe injuries of the kidney. The primary local symptoms are pain and tenderness, swelling and hematuria. The pain is generally deep-seated and dull, although from the expulsion of blood clots through the ureter it often becomes paroxysmal and very acute. As retrorenal extravasation ensues it becomes radiating and diffuse. Postural changes and deep inspiration increase it. The abdominal muscles are often rigid, and the patient assumes the posture of subjects with perinephritic abscess. Painless cases have been demonstrated by autopsy, but it is difficult to conceive how bimanual palpation could fail to reveal tenderness in even slight renal tears.

Through bimanual palpation the secondary primary cardinal symptom, the swelling, is made manifest. Generally, this is ill-defined, diffuse, and involves the entire costo-iliac interval. It is produced by infiltration of the perirenal and circumrenal tissue with blood and urine. If examination reveals a well-defined swelling, rounded and perhaps movable, it shows the absence of extravasation and the retention of urine within the kidney capsule proper. It is a condition of hemato-hydronephrosis. The ecchymosis often seen in the lumbar region, in rupture of the kidney, when primary, is due to superficial contusions of the soft parts; in most cases ecchymosis appears late, if at all.

Hematuria is the most constant primary symptom of rupture of the kidney. It occurred in 65 out of 71 cases tabulated by Maas; of 26 cases seen by Morris it was present in 18. It comes on, as a rule, soon after the accident and varies in intensity and duration. In contusions of mild degree, the urine is smoky and shows little tendency to clotting. In more extensive tears, clotting is quite common, either in the ureter or in the bladder. In severe hemorrhages from the torn kidney, the bladder may become filled with clots which can only be evacuated through a large catheter and by suction. Ureteral colics are of common occurrence in these hematurias and occasionally blocking of the ureter gives rise to the acute condition of hydrohematonephrosis already alluded to. On the other hand, injury of the cortex alone may not make itself manifest through blood in the urine. In very severe lacerations involving the pelvis, hematuria may also be absent through blocking or displacement of the ureter. Thrombosis of the renal vessels and stricture of the ureter antedating the trauma may also explain the absence of hematuria. Hematuria may disappear in 24 hr. or it may continue for as many days. In injuries of moderate degree it gradually disappears in from 3-4 days. Albuminuria sometimes continues for many weeks after the blood has disappeared.

Treatment. The treatment of rupture of the kidney has not yet been standardized and, unfortunately, these organs are being handled today as were ovaries a generation ago, when it was a fad to remove them for trivial reasons. The common procedures are: (1) Expectant treatment (let alone or later operation) for injuries where constitutional symptoms are absent and hematuria alone directs attention to the probability of a kidney lesion; (2) conservative surgery (tampon, suture or débridement) for a damaged kidney with a torn capsule; (3) nephrectomy for a destroyed kidney; (4) abdominal incision for a torn peritoneum.

One would judge from the cases reported in literature that nephrectomy is still the routine procedure. However, it is generally agreed that if the renal substance alone is only moderately injured, the pedicle being intact, conservative energy is indicated. It is criminal to routinely do a primary nephrectomy, that procedure being reserved as a late operation, and particularly when there is a widespread infection. A fever does not necessarily indicate infection, as absorption of blood and urine will cause an elevation of temperature after a lapse of 5-7 days.

A renal injury of moderate degree tends to recover spontaneously but expectant treatment with rest in bed and an ice cap over the injured side for at least 48 hr. should be insisted upon in all cases until the dangers from possible unusual complicating factors are over. The indications for exploration are: (1) immediate severe renal hemorrhage which endangers the patient's life; (2) steady hourly rise in pulse rate; (3) anemia due to continuous moderate hemorrhage over many days. The recognized indications of nephrectomy are: (1) tearing of the renal pedicle; (2) lacerations of the kidney in several places; (3) a tear extending toward the renal pelvis in a kidney whose short pedicle prevents delivering it so as to expose the rent for

suturing; (4) an extensive tear in the renal pelvis which can not be repaired or a complete tear across the ureter; (5) hydronephrosis or other severe disease of the injured kidney. Aside from severe hemorrhage there is no other justification for operation except infection. Since hematomas are easily infected, faithful supervision of the case is absolutely necessary if conservatism is attempted. Instrumentation is to be avoided when possible because of the danger of infection. However, large quantities of blood in the bladder with consequent clotting may lead to distention or tenesmus and require aspiration with a "clot sucker". Early and accurate diagnosis and prompt exploration in appropriate cases are imperative.

Operative Decision

A child aged 5 yr. was admitted about 3:30 p. m., September 28, 1928, with the history that he had fallen from the back of an ice wagon, striking his head, and that he was unconscious for about 3 minutes following the accident. He then apparently regained consciousness. While in the dispensary, however, he again lapsed into unconsciousness. He was referred at once to the surgical ward and the following findings were noted: pulse rate 148; respirations 26; temperature 97.4° axillary; blood pressure 120/62; no bleeding from the ears, nose or mouth and practically no bruise of the scalp or forehead; pupils unequal but reacted faintly to light. Definite muscular twitchings were noted on the right side of the face, the right arm and right leg. The left side was absolutely flaccid and showed no muscular twitchings whatever.

On moving the right limbs muscle tone could be ellicited, but there was no muscular resistance whatever on moving the left leg or arm. Breathing was rather shallow (not jerky or snoring). Blood count showed 6400 white blood cells with 73% polys. Urinalysis negative; x-ray examination within an hour showed no evidence of fracture of the skull. The child was watched very closely and pulse, respiration and temperature records made at frequent intervals. At 5.30 p. m. the patient was still unconscious and the findings were practically the same as originally given. The record certainly read like meningeal hemorrhage and yet the condition did not appear typically as such.

Settlement of the question of decompression was imminent Was operation indicated? Our conclusions were that lacerated brain with severe cerebral concussion was producing this picture. A spinal puncture was done about 5.45 p. m., giving clear fluid under great pressure. At 7 p. m. the twitching had ceased and at 8 o'clock the child could be roused when spoken to. The next morning the child was conscious and had complete control of his limbs. He was discharged 8 days after admission as completely recovered.

Surgical Judgment

This brings up the much heard yet vaguely defined subject of surgical judgment. Just what constitutes this so-called surgical judgment? It is an expression of a formal opinion and yet more. Is it long years of experience of the cold-as-steel variety of surgeon? Is it the nice discretion of the best read surgical mind that has a reserve knowledge of physical diagnosis and postmortem pathology? Or is it the dovetailing of symptom with symptom, or fact with fact, to an intangible conclusion; as for example, a sustained temperature, enlarged spleen, and rose spots indicating typhoid fever. I have heard various chiefs call it a "guess" based on experience. Others, a "hunch" to operate or to let alone. But, unfortunately, experience is the wisdom obtained from the happenings of one individual and consequently means the most to him alone. Furthermore, since man is not born with knowledge, he can only acquire it as fast as his primal faculties and his teachings permit. Combining these factors with the element of instinct called hunch or guess, for want of a better name, surgical judgment is still not entirely explained.

On August 12, 1928, a 19 yr. old male was driving a motorcycle on a wet road. He skidded and struck a machine. When brought to the hospital, his right arm was all but completely severed through the upper-third. The patient was taken directly to the operating room, and there Dr. Allman determined to save the boy's arm. The injury consisted of a laceration extending ⅔ of the distance around the upper arm on the anterior and internal aspects, with a compound comminuted fracture of the humerus about 3 in. below the head, and a complete severence of all the muscles and fascia on anterior and medial surface of the humerus. Suturing of soft tissues was done and a splint applied. Within a week, all sutures sloughed and pus welled up faster than the dressings could be changed. The pain, in the meantime, became almost unbearable because location of the injury required complete removal of the splint at each dressing. The question now arose as to indication for amputation, in an effort to save the boy from toxemic death. The chief's judgment, however, still warranted conservation procedure. The patient was again taken to the operating room, but this time, the wound was not touched. A modified airplane splint, reinforced at the waist by a wire collar about 6 in. wide, to disseminate the pressure over a larger area, was applied. The splint was then aided by a plaster cast of the arm and chest with an opening left sufficiently wide for drainage and dressing. It might be of interest to mention in this connection, that splendid results were obtained from constant application of wet dressings of S. T. Sol. No. 37, an aqueous solution of hexylresorcinal. After 89 days, the patient was discharged from hospital having complete use of his entire arm, including the fingers. The wound was completely healed. If I have failed to define surgical judgment, I have offered this case by way of illustration. Some of you gentlemen might be interested in seeing this picture of the cast, taken by the boy's mother.

Causes of Death

A discussion of the causes of death on any service is always instructive. Our total this year was exactly the same as last year; namely 21, caused as follows: A 77 yr. old female died 2 days after admission with a fractured femur. A 73 yr. old male died following a suprapubic for acute retention resulting from hypertrophied prostate. A male, 49 yr. old committed suicide by shooting himself through the head. A 35 yr. old female died the day after admission; she had sustained a fractured skull, fractured scapula, fracture of four ribs on the right side, and a comminuted fracture of the clavicle. Another suicide occurred in a male, 38 yr. old who made certain as to his outcome. The history was that of an ha-

bitual drunkard, who after being on a debauch for some time was admitted to the hospital on the verge of delirium tremens, having attempted suicide by cutting his neck with a razor, by lacerating his wrist and by jamming an ice-pick into his abdomen. A colored woman aged 40, died of cardiac decompensation and septicemia within 24 hr. after admission; she had been treated by a colored doctor for 2 weeks for a carbuncle of the axilla. A male, 62 yr. old died following a fractured tibia; he developed delirium tremens a couple of days after admission.

Another male, aged 68, died following fractured ribs extending from the second to the eighth on the left side. A female aged 51 died within 24 hr. as a result of second and third degree burns when a gasoline stove exploded. A 54 yr. old male died as a result of extreme shock and fractured skull, due to an automobile accident. A male aged 60 died 10 days after operation for a strangulated hernia. A child 3 yr. old was in a machine struck by a Pennsylvania Railroad train; the child sustained a puncture wound of the abdomen with herniation of the intestines through the abdominal wall and died the following day. A 37 yr. old male with burns of the upper half of the body, died about 8 days after admission, from toxemia and delirium tremens.

CAMDEN COUNTY

R. E. Schall, M.D., Reporter

The Camden County Medical Society held its regular monhtly meeting, February 14, in the City Dispensary Building, under the presidency of Dr. Day. There was a goodly attendance and the meeting was followed by the usual collation.

A communication from Dr. Browning, requesting a join meeting of the county medical society and the Physicians' Motor Club, was read and referred to the Business Committee.

Several communications were presented relating to legislative matters, especially as to Assembly Bill 25 and Senate Bill 44. Motions were adopted providing that a letter be sent from the society to the Camden County Delegates, requesting them to oppose this legislation; and that the Woman's Auxiliary be asked to help the County Society in efforts to defeat such legislation.

A motion was adopted calling for the appointment of a committe to see that the state society health talks being broadcast are published in county papers.

The scientific program was devoted to a symposium on "Novocain as an Anesthetic". Dr. D. F. Bentley, Jr., devoted his paper to "Novocain in Caudal Anesthesia", and Dr. I. E. Deibert to "Subarachnoid Block Anesthesia". (Both of these papers will be published in full in a later issue of the Journal.)

The subject was generally discussed by Drs. Davis, Lippincott, Shafer, Deibert and Bentley.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

The County Society Committee on Diphtheria Prevention, composed of Drs. E. G. Wherry, Chairman, and R. J. Smith, is working to keep our members ever mindful of the possibility of eliminating this disease. The following letter has been sent to all members:

The Committee for Diphtheria Prevention of the Essex County Medical Society wishes to bring once more to the attention of all members of the medical profession the opportunity to control the prevalence of diphtheria, and to point out the need for concerted action at the present time.

Immunization of the *school children* by toxin-antitoxin, is being energetically carried out by the various health departments and school physicians so that a relatively large proportion of these children are safe. However, owing to insufficient knowledge on the part of the laity, there remains some prejudice against the "Schick test", especially among those of foreign born parentage. Active coöperation of the family physicians can do much to overcome this prejudice.

Immunization of the *children of pre-school age* offers another problem. These are not ordinarily brought in contact with health officers and school physicians. The family physician must assume responsibility for their protection. There are at present more cases of diphtheria than for a long time past; many are severe and too many fatal (if antitoxin is delayed). It is not considered necessary to Schick test such children, but injections are advised of toxin-antitoxin, at 7 day intervals, to immunize them against diphtheria, perhaps for life. The procedure is safe, simple, the discomfort negligible and the results satisfactory.

Let us help relegate this dread disease to the company of other preventable diseases; such as small-pox, yellow-fever, typhus, bubonic plague, etc.

The various health departments and medical organizations throughout the state are anxious for your assistance in this matter and will gladly give information or aid which you may desire. Pamphlets suitable for your waiting room table or distribution to your patients will be gladly furnished free by the health department of Newark upon your request.

Academy of Medicine of Northern New Jersey

E. LeRoy Wood, M.D., Reporter

On Thursday evening, February 21, 1929, the stated meeting was called to order by its President, Frances R. Haussling.

John J. Connolly, M.D., of Newark, was elected to membership.

After the regular business of the Academy, the President asked Dr. Lee W. Hughes, Chairman of the Eye, Ear, Nose and Throat Section, under whose auspices the meeting was held, to preside. Dr. Hughes appointed a nominating committee for his section consisting of Drs. H. C. Barkhorn, H. B. Orton and A. C. Zehnder.

Dr. Fielding O. Lewis, Professor of Laryngology, Jefferson Medical College, Philadelphia, Penna., read a paper entitled, "Some Problems in the Diagnosis and Treatment of Laryngeal Cancer". (To appear in full in a later Journal.)

The paper was discussed by Drs. Orton, Barkhorn, Caldwell, Van Ness, Haussling and Keim. In closing discussion, Dr. Lewis said that he considered Pachydermia Laryngis a precancerous condition. He found the bronchoscope a valuable aid in postoperative care of the laryngectomized patient, using it to remove the inspissated secretions from the trachea and bronchi. In closing the wound after laryngec-

tomy a submucous resection of the first ring of the trachea allows more mucous membrane for attachment to the skin, with a greater frequency of primary union.

Associated Physicians of Montclair

Walter B. Mount, M.D., Reporter

A regular meeting of The Associated Physicians of Montclair and Vicinity was held January 25 at the Elks Club in Montclair. "Conservatism in Obstetrics" was the subject of an excellent paper read by Dr. Frederick C. Irving, of Boston, Assistant Professor of Obstetrics, Harvard Medical School. A large and appreciative audience, including many guests, was attracted, in spite of the inclement weather.

The discussion was opened by Dr. Wilbur Ward, of New York, Attending Obstetrician, City Hospital, and Dr. William Sidney Smith, of Brooklyn, Attending Gynecologist and Obstetrician, Brooklyn Hospital; and was added to by Drs. A. W. Bingham, S. A. Cosgrove, Carl H. Ill, R. T. Potter, R. J. Brown, D. L. McCormick, H. W. Foster, J. A. Moore and others.

A dinner in honor of the guest of the evening preceded the meeting, which was followed as usual by a general repast.

GLOUCESTER COUNTY

Henry M. Diverty, M.D., Reporter

Dr. George M. Piersol, Professor of Medicine in the University of Pennsylvania Graduate School of Medicine, was the speaker at the regular meeting of the Gloucester County Medical Society held February 21 at the Woodbury Country Club.

Dr. Piersol spoke on "Advances in Gastro-enterologic Diagnosis".

Among the doctors present were: Drs. Ralph Hollinshed, Horace M. Fooder, C. I. Ulmer, Livingood, E. E. Downs, Wendell Burkett, Henry Sinexon, C. C. Sheets, Duncan Campbell, J. Harris Underwood, William R. Brewer, Harry Sickel and Paul M. Pegau. Among the guests were: Dr. C. R. Kline, Camden County Delegate, and Dr. George Laws, of Philadelphia.

HUDSON COUNTY

M. I. Marshak, M.D., Reporter

The Hudson County Medical Society met at the Carteret Club, Jersey City, on February 5, with Dr. W. J. Sweeney presiding.

Dr. B. S. Pollak discussed the program of the National Tuberculosis Association in regard to an early diagnosis campaign to be held in April. As a part of this campaign a Postgraduate Tuberculosis Institute is to be held. He asked that the society take an active and leading part in sponsoring this movement. A motion was made, seconded and passed that the President appoint a committee to work in conjunction with the Board of Managers of the Tuberculosis Sanatorium and the Tuberculosis League in working out the plans for such an institute.

Dr. Howard M. Clute, Associate Surgeon at the Lahey Clinic, Boston, read the paper of the evening on "The Thyroid Adenoma". The reasons why this condition is of especial interest are, hyperthroidism, tracheal irritation and deviation by presure, cancerous degeneration and unsightlyness. Adenomas are irregularly placed encapsulated tumors of the thyroid gland. They vary in size and number and are of 2 types. The fetal type grow from intracellular rests while the colloid type are usually multiple and occur mostly in endemic goiter. Mixed type adenomas sometimes occur. The presence of hyperthyroidism is a definite indication for removal of adenoma. In fact, Dr. Clute advised operation on all adenomas because they tend to hyperthyroidism or malignancy. The operation is less dangerous while young and before hyperthyroidism develops. All patients are prepared for operation by a course of Lugol's solution and rest. Pre-operative preparation with iodin has reduced the operative mortality from 3-6% to less than 1%. In early cases no deaths occur. Thyroeardiacs are those patients who at first have occasional attacks of auricular fibrillation but in whom later the heart involvement becomes more severe with constant fibrillation and attacks of congestive heart failure assuming the character of chronic heart disease. There is a history of marked variation in weight, weakness, emaciation and pigmentation. Removal of the adenoma will bring immediate and lasting cures by lifting the load and whip on the heart.

Pressure symptoms arise slowly. They are stridor and dyspnea due to pressure and deviation of the trachea. Occasionally there is difficulty in swallowing because of pressure on the esophagus. At times x-rays only will demonstrate this deviation and pressure. Completely substernal thyroids are rare and can only be demonstrated by the x-rays. Sudden hemorrhage into an adenoma may produce marked and dramatic pressure symptoms. Immediate removal is essential in these cases. Malignancies occur more frequently than the profession is accustomed to believe; 4.5% of adenoma eventually become malignant. Adenomatous goiter should be considered the precancerous stage of these malignancies. The symptoms usually described—hoarseness, rapid growth, stony hardness, difficulty in breathing and fixed tumor—are those of inoperable malignancies. One should never wait for these symptoms to develop before operation.

Cancer of the thyroid is best attacked by early removal of all adenomas before malignancy can be diagnosed. If they have extended outside the capsule, they are inoperable. "Lumps" in the thyroid should be looked upon in the same light as are lumps in the breast.

Drs. Dickinson, Miner, Lang, Nelson, D'Acierno, Klaus, Curtis and Jaffin discussed the paper.

Clinical Society of North Hudson Hospital

J. Africano, M.D., Reporter.

The regular monthly meeting of the Clinical Society was held Tuesday, February 12, 1929, with Dr. A. F. Ash as Chairman. The hospital report for January was read by Dr. Tannert: Total discharges, 283; deaths, 25, of which 11 were medical, 10 surgical, 3 pediatrics, and 1 stillbirth.

The following cases were presented:

Complications Following a Prostatectomy (Dr. Hekiman): J. F., aged 66, retired, admitted Dec. 14, 1927, following an acute retention of urine.

Past history: no history of venereal diseases; acute multiple arthritis 14 yr. ago.

Present illness: Onset 4 yr. ago with frequency and difficulty in urination; both symptoms getting steadily worse; also suffers from dysuria and dribbling. Several attacks of acute retention of urine. Seen 4 days ago when ordinary catheters failed to gain entrance into the bladder.

An obese man with large sketetal frame; weight 250 lb. B. P. 160/80. Instrumentation revealed the point of obstruction to be within the prostatic urethra. Rectal examination showed a prostate of huge dimensions, the finger barely able to map out the borders of the gland; lobes uniformly enlarged with the consistency of an adenoma; no hard areas, nodules or fixation felt. Prostatectomy was advised.

Blood urea on admission 50 mgm. Blood count: W.B.C. 7600; P. 67%; M. 33%. Wassermann neg. P.S.P. given intramuscularly appeared in 13 minutes. No estimate on 2-hour collection was obtained; due to decomposition of color in the excreted urine.

December 15, 1927: First-stage suprapubic cystostomy was performed with local infiltration anasthesia. No growth or calculus found in bladder; no projection of prostatic mass into the bladder cavity. Pezzer catheter was introduced and elimination régime started.

December 23, blood urea having been reduced to normal limits, prostatectomy was done under gas-oxygen anesthesia. Great difficulty was encountered in shelling out the prostate, as there was no separation along the natural lines of cleavage; this pear-shaped mass 3 inches in its long diameter had to be reached as a whole under the pubic arch.

No postoperative complication set in until the eleventh day. At that time the patient felt comfortable enough to insist on being transferred to his home. The same afternoon he had a chill; temperature rose to 106°; suffered severe pains over the kidney areas. This was the onset of acute bilateral pyelonephritis. Chills with accompanying temperature of 105-106° recurred 5 times within a week. Extremely toxic, at times drowsy, more often delirious and irrational. Blood urea increased to 80 mgm. Toxic symptoms gradually disappeared under treatment and blood urea decreased to 20 mgm. On the thirty-second day postoperative, although he was still running a temperature of 102°, he decided on going home with his nurses. A sound Fr. 28, was passed, and a large size soft rubber catheter was introduced and strapped in.

The septic condition cleared up in 2 weeks, the suprapubic incision healed, but there was difficulty in control of urine. Left epididymitis was ushered in with sudden rise of temperature to 105°. Epididymitis recurred again at several weeks intervals on the right side, then on the left again. Following this new complication there was leakage from the suprapubic wound; a catheter could be introduced but patient experienced difficulty in emptying the bladder. The sinus would close at times when there was no dysuria or tenesmus; then suddenly urinary stream would decrease in volume, with increased spasm the sinus would open again, acting as a safety valve against the increased intravesicular pressure. On May 20, 1928, granulations were punched out, indwelling catheter introduced and left in for 10 days. Two weeks after removal of the catheter, the sinus opened and the same chain of events was repeated.

June 19, 1928, patient was readmitted to hospital. The suprapubic incision was dissected out with the sinus; careful inspection showed bladder wall completely healed, the sinus led into the prostatic bed after curving behind and under the pubic arch. The incision was closed after obliterating the sinus bed; a large sound passed; some of the granulation tissue was punched out and a large catheter strapped in. Two weeks later he was discharged; the sinus area was healed and patient voided with a large stream of clear urine. In 3 weeks there was another attack of epididymitis, without any instrumentation. Two months after the suprapubic repair a sinus formed again. Any instrumentation unless carried out with extreme care, would be followed by chills and fever. The sinus healed and opened repeatedly until the end of the year. By this time the prostatic bed was occupied with firm sclerotic tissue with a narrow irregular passage, admitting only small flexible bougies. There was constantly a large amount of residual urine, clear but undoubtedly, by back pressure, undermining the renal function.

On Jan. 14, 1929, patient had complete retention, which was relieved with a small catheter. The following day, under gas-oxygen anesthesia, a sound was passed and a catheter strapped in. Paralytic ileus, persistent vomiting and hiccough, were followed by complete anuria, uremia, coma and death on the seventh day.

Comment: Among the factors producing stricture following prostatectomy, one must consider malignancy. There were pathologic reports of "no malignancy" on prostate and punched specimens on 3 different occasions. This type of complication is met occasionally after prostatectomy due to either incomplete removal, or to a flap of mucous membrane forming the so-called "median bar". In this case the contracture was more pronounced at the anterior portion of the prostatic urethra. The unusually long axis of prostate, occupying space only along the urethra, without projecting into the bladder cavity, left a bed approximately 3 in. long, to be formed into a canal. The bladder epithelium usually forms a new lining to the extent of 1 in. of the proximal portion of the canal. This left a much longer distal portion without epithelial covering. Naturally the ever-ready connective tissue undertook the repair process; sclerosis and irregularity in outline resulted in a type of stricture which will not yield to attempts at dilatation.

Discussion

Dr. DeMerrit said this was a huge prostate which had raised up the base of the bladder; the apex of the bladder rests against the triangular ligament which is unyielding, hence there is no downward growth; a one-stage operation would not have been satisfactory in this case.

Dr. Klaus cited a similar case in which he did a one-stage prostatectomy 2 yr. ago, followed by a urethral stricture which would not even admit a filiform bougie; eventually dilated under anesthesia but only by partially opening the suprapubic wound and under guidance of the finger in the bladder the sound was passed through; a retention catheter was kept in place 2 weeks. Subsequently dilatation was carried out for 6

mos., and the patient since has had no further dilatation and has had no difficulty in urination.

Dr. Lange stated that temperature and chills following a prostatectomy are not at all uncommon, and that epididymitis is common; inasmuch as there was difficulty in enucleating the growth, there is a possibility of carcinoma, even though the mass was encapsulated.

Dr. Sweeney suggested suprapubic drainage as the only final resort, with an indwelling catheter.

Dr. Hekimian said he had twice done punch operation, to remove excess tissue, and for biopsy; no evidences of carcinoma were found.

Colon Bacillus Pyelitis and Cystitis. (Dr. DeMerritt): Mrs. J. H., widow, age 58, admitted to medical service December 6, 1928. About a month before had a "cold" and developed frequent, burning urination, lasting to date. Past history: Two full term pregnancies. Constipated and has used "physics" for 15 years. Suspension of uterus 12 yr. since; pneumonia 3 yr. and menopause 2 yr before.

Well nourished and rather stout. Systolic apex murmur and tenderness on pressure at McBurney's point and over the pubes. Blood pressure 138/96; blood count normal except for a relative increase of mononuclears. Urine contains blood cells and pus.

Patient was transferred to the genito-urinary service. Cystoscopy on December 14 showed the urethra and trigone deeply congested and bleeding freely on instrumentation. Ureters catheterized and pelves irrigated with argyrol. Right urine normal; left contained pus and colon bacilli. After this, hematuria was a marked symptom for 2 weeks. At a second systoscopy, December 21, the bladder was full of bloody urine and clots, and the trigone bled so that little could be seen; by mere luck, the left ureter was picked up and the left pelvis irrigated with 1:5000 acriflavin. January 10, 1929, the trigone and urethra looked practically normal and did not bleed. The urine showed a little pus and a few red cells microscopically. Patient was discharged, to continue treatment at home.

Comment: A wish to have the treatment discussed is the reason for reporting this case. She had 2 pelvic irrigations, as already stated. On admission alkaline treatment was instituted, but was not continued long enough to change the reaction of the urine, which was acid throughout. After the first cystoscopy, she had daily bladder irrigations of 1:3000 acriflavin. A little later she was put on methylene-blue by mouth. You can give credit to the blue, the yellow, or both, as you prefer.

I do not approve of the indiscriminate giving of alkalis and forcing of fluids in colon bacillus infections of the bladder and kidneys. If done at all, it should be done only after the hydrogen ion concentration preference of the particular strain of the bacillus that is causing the disease has been found by the laboratory.

The colon bacillus, in its different strains, has, on the whole, a preference for acid media; yet it has a wide range, as between the different strains, from 0.4% acid to 0.2% alkali. I prefer to attack it with antiseptics, not by changing the reaction of a secretion from normal acid to abnormal alkaline, nor by driving already damaged kidneys to deliver abnormal quantities of fluid.

Discussion

Dr. Hekimian said treatment in these conditions should not be instituted till the infecting organism is found; B. coli is a frequent invader of the pelvis, kidney, and bladder, especially in cases of habitual constipation; other organisms, with their various strains, act differently; some are inhabited by alkalies; a staphylococcus infection of kidney is much more resistant to treatment than colon bacillus infection; this case responded nicely to irrigation, but often cases will occur where the whole gamut of dyes, irrigations, urotropin, hexylresorcinol, is run without effect, till suddenly on stoppage of treatment, a spontaneous cure occurs.

Dr. Roberts believed that neosilvol, of all remedies used as a pelvic lavage, offered the best chances for cure.

Dr. Luippold's experience with urotropin is that it causes more trouble than when not used at all, and that better success is met with by using sodium citrate and hot colonic irrigations, the latter alkaline also.

Dr. D'Aclerno suggested using the urinary sediment to make an autogenous vaccine; by such means he has cured several cases; if the alimentary tract is the first source of infection, attention to the bowels, with use of intestinal antiseptics, should hasten complete cure.

Malignant cerebrospinal meningitis (Dr. A. W. Justin): M. V., male, white, age 35, single, nativity Italy, barber, admitted to hospital December 25, 1928, at 10 a. m.

Present illness: Worked as barber, until 6 p. m., day before admission, when he complained of not feeling well, and went to bed. The following morning, his friend found him in a comatose state. On admission: Temp. 102°; pulse 96; resp. 30. He was markedly stuporous, gave no response to questions and resisted examination. His pupils were equal and reacted to light. Neck rigid. Foul odor from mouth. Coarse râles over lungs. Abdomen rigid. Knee-jerks exaggerated and positive Kernig. Petechial rash over entire body.

Spinal puncture gave 30 c.c. fluid, under moderate pressure, with heavy cloud, and precipitate. Cell count 550; polys. 100%; globulin increased: sugar diminished. Smear Gram-negative diplococcus.

Patient was given 30 c.c. antimeningococcus serum intraspinally. Ice bag to head. Tap repeated at 10 p. m. The following day he was still comatose, heart weak, pulse rapid, lungs showed impaired breath sounds, and coarse râles over both lungs. General rigidity more marked. Temp. 101-102°. Two spinal taps done, and 2 doses of serum. Stimulation with digitalis and coramin. As retention enemas of glucose and soda were not satisfactory, he was given glucose solution intravenously.

The following day, temperature rose to 106°, pulse 140. Breathing was rapid. There was terminal jaundice and pulmonary edema preceding death.

Death occurred in 60 hr. from time that patient was at his usual work, and within 48 hr. after onset of symptoms. The case is presented on account of its rapid course, and the non-response to early and repeated spinal taps and serum injections.

Discussion

Dr. Luippold suggested a virulent strain of staphylococcus or streptococcus to account for the sudden death; he thought "cerebrospinal meningitis" a term not expressive enough to account for the signs and symptoms mentioned, whereas "cerebrospinal fever" better described the entity, giving room for the thought that the organism can reside in other localities; thus it may occur in the throat, trachea, certain joints, and in the cerebrospinal system.

Dr. Hekimian mentioned a case with rapid onset of headache, backache, convulsions which were tetanic in character, and a turbid spinal fluid; the final diagnosis was pneumococcus meningitis. All these cases are fatal; this case died in the hospital on the third day of illness.

Unusual case of acute rheumatic fever (Dr. Terk): G. F. R., age 44, male, married, musician and carpenter. First attack of acute articular rheumatism in joints of arms and legs when 14 yr. of age, and repeated attacks every 2 or 3 years. When 17 yr. old he was very sick with rheumatism and was ill about 6 months. In 1926 he had another attack and was ill for 3 months. At this time he first noticed his heart condition. Repeated attacks of tonsillitis and quinsy since a child; last attack October 12, 1928. Influenza followed by pleurisy in 1919.

Present illness: Admitted to hospital January 17, 1929, complaining of marked dyspnea, weakness, fever and pains about the precordial area. Previous to admission was under a physician's care for 2 weeks, complaining of pain in small joints of the body. On admission, temp. 102°; pulse 105; resp. 30; B. P. 142/44.

Heart sounds irregular, weak and intermittent. Apex beat displaced downward and to left, evidence of enlargement of the heart to the left. Slight systolic murmur heard over mitral, tricuspid and aortic areas. Crepitant râles over right base; flatness and loss of breath sounds in left base, which was aspirated on January 19, 1929, when 70 c.c. of fluid were removed. The right base was also aspirated, but no fluid obtained.

Wassermann: Doubtful. On January 20, 1929, patient developed severe pains in joints of both hands and right elbow, lasting 2 days and disappearing. On January 26, 1929, I was unable to find any murmurs, but evidence of marked transverse enlargement. Pulse regular, of better quality and volume. Dyspnea disappeared; temperature apparently normal. Patient's condition improved and he was allowed to leave the hospital February 6, 1929.

Discussion

Dr. D'Acierno asked if a provocative test had been performed, inasmuch as the first Wassermann was dobtful, and if any glands in the body were palpated; he believes that there is some connection between acute rheumatic fever and syphilis, that either may precede the other.

Dr. Justin said that there was a minimum of joint symptoms present; an ulcerative endocarditis was held in mind, but there were no petechiae.

Dr. Luippold referred to the work of Small, who has isolated a Streptococcus "cardioarthritidis", which is very often found in the adolescent type of acute rheumatic fever; he has demonstrated the preparation of a serum, which allays the symptoms and reduces the length of the disease; part of his results are confirmed in a recent article by other workers.

Dr. Terk said 2 Wassermann's were taken, and both were negative; there were no glands palpable.

Chronic mastoiditis complicated by facial paralysis (Dr. Comora): A. J., male, age 36, first seen December 3, 1928, at home, with a history of recurrent purulent otitis media with odor since childhood. Present illness dates back 1 month to a cold in the head. Three weeks before admission, a myringotomy was done on the right ear; 3 days before patient was seen by me he was seized with convulsions and was delirious on the train from Troy; on the night before admission was irrational and complained of terrific pains in the head.

Examination at home on day of operation revealed an extremely sensitive and irritable man, very restless and unsteady on his feet, complaining of severe pains behind the right ear, with headache on the same side. The posterosuperior wall was bulging so as to partially occlude the external canal at the tympanum; some tenderness over the antrum and tip, but no swelling over mastoid, and no eversion of auricle; a definite flaccidity of the muscles of the face on the involved side with hyperesthesia; slight discharge from the ear. Upon questioning, the wife said she noticed that the patient had been unable to hold a pipe in his mouth for the past several weeks.

Operation performed the same afternoon showed extensive destruction of the anterior, zygomatic and tip cells, with pus and granulation deposits; posterior cells were found more sclerotic but necrotic in spots; posterior wall, especially at the aditus and the facial ridge, was soft and easily curetted away, forming a very wide aditus and antrum where much granulation was found, with a fair amount of pus under pressure.

Four days later a definite facial paralysis developed, with lachrymation and pain in right eye, immobility of upper lid and flaccidity of muscles of face, with droop and elimination of expression lines. December 13, patient was discharged with almost complete recovery of muscular control. He has since regained full control of facial muscles but still has slight amount of otorrhea which gradually diminished.

The points of interest in this case are:

(1) X-ray diagnosis did not verify the clinical findings.

(2) There was so much necrosis in region of the facial, that release of pressure by removal of pus and granulation, and removal of most of the necrosed bone, was deemed sufficient without venturing too far into radical surgery.

(3) An exacerbation of a chronic mastoid is much more likely to usher in serious complications than a simple acute mastoid, and therefore more care should be given chronic discharging ears as a prophylactic measure and before complications arise.

Chronic mastoiditis with unusual symptoms (Dr. Comora): J. Mc.G, male, aged 30. On October 16, 1928, patient came to my office complaining of pain in the right ear, of 3 weeks' duration following a cold after swimming. Myringotomy had been performed 10 days previously at a New York hospital. Because of insufficient drainage and bulging membrane, I did a paracentesis at the office under gas anesthesia. October 24, secondary paracentesis, but patient did not improve clinically; ear did not discharge so much in the

following 2 weeks, and the headaches became progressively worse; posterior wall was bulging; there was no edema or eversion of the ear; moderate amount of tenderness over the tip and antrum; temp. 99-103°. Operation was advised several times but patient refused until November 3, when he was in such an asthenic condition that he was taken to the hospital and a simple mastoidectomy performed. Immediately beneath the thin cortex, much thick pus appeared in the wound, soft necrosed bone especially of the tip was curetted away, an area at the superior lateral sinus near the middle fossa was found necrosed and curetted. Myringotomy was performed. On November 10, one week after operation, discharged from the hospital apparently cured.

The patient came to the office for dressings and 1 week after discharge began again to complain of increasingly severe headaches and pain over the right eye. The canal was practically dry and the wound discharged a moderate amount of purulent fluid. In the following 3 weeks the headaches became progressively worse and on December 12, 5 weeks after operation, a secondary mastoidectomy was done. After all granulations had been removed, the bone in the region of the sinus knee, extending ½-¾ in. beyond the boundaries of the previous operative field, was found necrosed and lying over the uncovered lateral sinus wall and involving the table of the middle fossa. This was all curetted away until healthy bone was encountered. After 9 days of slow but steady improvement, patient suddenly developed 3 convulsions at short intervals and became so unmanageable as to need forcible restraint. The following day patient vomited a large amount of undigested food. Remained dazed for a few days and complained of a moderate degree of amnesia. Recovery after this was uneventful and on January 10, 1929, he was discharged as much improved and without headaches.

Laboratory tests: Wassermann, blood, urine and spinal fluid were negative. Roentgengram prior to the second operation, according to Dr. Pearlstein, suggested some involvement in the region of the knee, where the pathology did exist. Culture of the pus showed pneumococcus. The pulse was at no time subnormal; there was no deviation from the normal in the eye-grounds; at no time was there weakness or paralysis of the extremities; the knee-jerks were sluggish, but otherwise there was no change in response to various tests of sensation.

Comment: In surgery, we are too much inclined to keep the normal in mind: normal boundaries, structures and tissues; we forget that we are dealing with pathology which respects neither outlines nor tissues. There is no doubt in my mind that the few cells resting on the lateral sinus at the knee should have been cleared out at the first operation, but the pathology was unusual and not obvious, and I was too quickly satisfied. Another point to keep in mind, however, is that the patient repeatedly refused operation until his resistance was exceedingly low and the bony structures were probably beginning to become saturated with secretions which ordinarily would have been taken care of by the blood stream.

Discussion

Dr. Selinger said that sometimes it was a question as to whether operation should or should not be performed in a case of facial paralysis. With mastoiditis—if the paralysis is due to inflammation, edema or granulation tissue—then of course one operates.

Dr. Lange wished to know what part of the facial nerve was affected in these paralyses, and Dr. Kuhlmann what proportion of facial paralysis was due to inflammation and infection, and what portion to unavoidable injury to the facial nerve.

Dr. Comora stated that attention to the ear in certain cases with an associated paralysis may result in a cure; the most common cause of paralysis which is permanent is trauma; in this case, the cause was pressure necrosis due to a large amount of pus and granulation tissue; the nerve is generally involved in the region of the aditus.

Carcinoma of the thyroid gland (Dr. Selinger): Mrs. M. P., age 46, white, had 2 chief complaints: sensation of a lump in the throat and a visible mass in the neck. This mass was first noticed about 15 years ago following the last pregnancy; has been getting larger and larger till she had a sensation of tightness around the neck but no difficulty in swallowing or breathing. She has become markedly nervous, sweats a great deal and always feels warm. There has been no change in weight; feels that she cannot clear her throat but does not cough. Experiences no headaches nor dizziness; but gets excited easily, is very sensitive, emotional and irritable.

Physical examination reveals a well nourished female without exophthalmos; pupils equal and react to light and accommodation; extra-ocular muscles normal. Examination of the neck revealed no rigidity, no abnormal pulsations and no glandular enlargement. A large mass is present, most pronounced in the region of right thyroid lobe; about the size of an orange, hard, smooth to the touch, but unattached to the surrounding tissues. Immediately under the chin, a small cyst is visible and palpable; no connection with the thyroid pathology. B. P. 118/72. Blood count: Hb. 95%; R.B.C., 4,500,000; W.B.C. 7400; Polys. 70%; Monos 30%. Urinalysis negative.

Thyroidectomy was performed. Pathologic report of specimen of thyroid gland; measures 50-x 40 x 30 mm.; weight 35 gm.; dark in color and mottled by hemorrhagic areas; consistency firm, rather dense and homogeneous in structure. Microscopic: the alveolar structure and colloid content present, though not regular; their epithelial lining completely disarranged and streams of epithelioid cells found between the alveoli also in masses; blood-vessels surrounded by a collar of these cells. Diagnosis: Carcinoma of the thyroid gland.

Comment: In 90% of cases malignant goiter develops in an already preëxisting goiter. A malignant tumor developing in a normal thyroid is rare; it is nearly always secondary to some other thyroid condition; especially adenoma. Malignant degeneration of goiter occurs mostly between the ages of 40 and 60 yr. However, statistics from Carrel, Carranza, Schmidt and Von Straaten show that cancerous goiter may be found in people as young as 10 and 12 yr. of age. Malignant goiter is found more frequently in women than in men and occurs mostly at the menopause. This is the reason why it is said that goiters which begin to grow at that time of life, should be promptly removed.

Discussion

Dr. Klaus performed the operation, and stated there was difficulty in removing the mass, the right lobe, and the isthmus, and part of the left lobe being involved, with also about 6 glands at the superior pole; his preoperative diagnosis was multiple adenoma; but Dr. Morgan returned a pathologic diagnosis of carcinoma, which Dr. Braunstein confirmed.

Dr. Reitnauer asked if any check had been made as to metastasis to the lungs, pelvis, sternum or ribs.

Dr. Weiss asked if radiation was being considered.

Dr. Selinger concluded the discussion: this was not a sudden affair, but has existed since the last pregnancy; no postoperative radiation was done; no symptoms or signs of metastasis are present.

Tuberculosis peritonitis simulating ovarian cyst (Dr. A. Schulman): K. N., age 50, female, married, admitted to hospital January 3, 1929, with a history of swelling of the abdomen, and pain in both lower quadrants and back. Was in the hospital 1 yr. before for practically the same symptoms. Paracentesis of the abdomen at that time yielded 305 oz. of fluid, and patient was discharged with a diagnosis of "portal cirrhosis with ascites." The abdominal swelling started again in May of 1928 and has been growing progressively larger.

Patient, despite age, still menstruates; irregularly, very profusely, and accompanied by severe pain.

Physical examination shows a rather pale, well nourished female, with an abdomen about the size of a 6 months' pregnancy. The swelling more on the right side; flanks do not bulge and the hypogastrium is not flat; on the contrary, protruding anteriorly, and moves with the patient as she turns from side to side. The abdomen feels smooth, and there seems to be a mass, reaching above the umbilicus, more on the right side. It can be grasped with both palms, and pushed from side to side. The liver not enlarged, and the spleen not palpable. Tympanic note on either side of the tumor mass, and in the epigastrium. The mass percusses flat, and a fluid wave is present. Vaginal examination shows a rectocele, cystocele and a second degree procidentia. The uterus slightly enlarged, and pushed over to the left. A large mass felt in the right fornix, freely movable, slightly tender, and reaching a little above the umbilicus; smooth and symmetrical and gives the feeling of fluid.

A diagnosis of ovarian cyst, or ascites of portal origin, was made, and operation advised. At operation, the abdomen was found to be full of a straw-colored fluid; approximately 300 oz. The visceral and the parietal peritoneum were studded with small tubercles. The small intestines were matted together and adherent to the parietal peritoneum, forming a large cavity, or sac, in which all of the fluid had accumulated. The large intestines were not adherent, surrounded the mass, and were slightly distended. The tubes and ovaries were normal, but the uterus was adherent to the mass, and pushed over to the left. A diagnosis of tuberculous peritonitis was made and the abdomen closed after removal of all the fluid. The patient recovered nicely from the operation, with no ill effects. X-ray of the chest postoperatively showed peribronchial infiltration but no active tuberculosis.

The patient was discharged with wound healed by primary union, and a slight accumulation of fluid seemed to be present. Seen on February 5, 1929, patient stated that she felt better, and examination showed no fluid present.

Obstruction of ureter from prolapse of kidney (Dr. Roberts): This woman first came under my observation about 3 months ago, complaining of indefinite colicky pains, nausea and abdominal distention due to gas. The severity, however, never approached that of a Dietl's crisis. She suffered from frequent micturition during the day but was rarely disturbed at night. Gave a history of cystitis. Catheterized specimen of urine from bladder was negative. A mass was plainly palpable in the lower left quadrant of the abdomen.

Patient was hospitalized with tentative diagnosis of floating kidney. Here let me digress a moment to recall to you Cabot's old classification: Floating kidney, great range of mobility; movable kidney, slight range of mobility; misplaced kidney, palpable but not mobile. P. S. P. test showed left kidney at end of 30 minutes to secrete less than 0.75%. Pyelogram showed the left kidney enlarged, ptosed and distorted.

At operation a kidney markedly ptosed but otherwise normal was found. Fixation by the Kelly method of triangular sutures was performed. Uneventful recovery except for a stitch abscess. Eighteen days later an Indigo carmine test was done with secretion right kidney 5 minutes and left kidney 5½ minutes, both apparently secreting the same quantity. The interesting feature of the case is the fact that before operation the left kidney had apparently ceased functioning, probably due to a kink in the ureter caused by the extreme ptosis. Secondly the rapid reëstablishment of function after proper fixture of the offending member. Except for a slight cystitis, the patient is now well.

Osler Clinical Society

January Meeting

The Osler Clinical Society met at the Union League Club, Jersey City, on January 16, with Dr. Rosenstein presiding.

Dr. E. G. Waters showed a baby born without development of either rectum or anus. He discussed the embryology and the operation which was necessary to remedy the defect. An enterovaginal fistula was present in this case.

The second case presented was one of genital tuberculosis in a female. Operation disclosed a pyosalpinx with swollen ovary on each side; the peritoneum was studded with tubercles.

Dr. Charles Gordon Heyd, Professor of Surgery at the New York Post-Graduate Medical School and Hospital, gave a talk on "Goiter", illustrated with lantern slides. The histologic unit of the thyroid is an acinus gland lined with cuboidal or low columnar epithelium resting upon a basement membrane and containing colloid material. This unit in the histologic sense may vary in 3 definite ways; (1) By an hypertrophy of the acinar epithelium, giving a parynchymatous cell type; (2) by increase or diminution in colloid material, giving a colloid type; and (3) by development and expansion of new alveoli from embryonic tissue, giving an adenomatous cell type. These are paralleled by clinical states representing a pure hyperthyroidism from hyperplasia of the acinar cells, a pure hypothyroidism from atrophy or fibrosis of the cells, and thirdly, a state of dysthyroidism from development of adenomatous tissue.

The acinar cells increase in number by 3

well defined methods: (1) Individual proliferation; (2) infolding or invagination and papillomatous hyperplasia of the cells; and (3) by budding, with the formation of independent acini.

The therapeusis of thyroid pathology is dependent upon 2 factors, the degree of secretory dysfunction, whether it is a plus or minus quantity, and the mechanical effects of thyroid enlargement. Goiters may, therefore, be classified as (1) those with increased secretion, (2) those with normal secretion, and (3) those with minus secretion. There are 3 types of goiter in the hypersecretion class; goiter of adolescence, the goiter of Graves' disease, and the goiter of adenoma.

There are 4 symptoms of outstanding importance for clinical recognition of hyperthyroidism. The presence of 3 of them is strongly suspicious of hyperthyroidism and the presence of 4 is almost always due to this condition. A persistant, continuous, unexplained tachycardia may be the only early and suggestive symptom of a mild Graves' disease; there is marked variation in weight with a general trend of being much underweight; the thyroid is somewhat enlarged and there is occasionally a suggestion of protrusion of the eyeball. The outstanding features of the clinical history of Graves' disease are the complete evolution of symptoms within a comparatively short period of time, together with the presence of exophthalmos. Adenoma is insidious in onset, the patients usually presenting themselves at about 40 years of age, with varying signs of cardiac pathology.

The surgical treatment of hyperthyroidism embraces 3 well defined periods; preparation of the patient by the use of rest and sedatives combined with iodin therapy, the operation itself and the postoperative treatment. The best clinical sign as to when to operate is the pulse rate although the metabolic determination is also necessary. The anesthesia of choice, in his opinion, is rectal anesthesia of Gwathmey. If the preliminary treatment has been properly carried out, the postoperative cardiac indications may be met with the addition of digalin or camphor.

Drs. Miner, Bartone, L. Franklin, H. Franklin, Jaffin, Pollak, Nallit and Waters discussed the paper.

February Meeting

M. I. Marchak, M.D., Reporter

The Osler Clinical Society met at the Union League Club, Jersey City, on February 20, with Dr. J. W. Rothenstein presiding.

Dr. Heilbrun presented a case of "Enlarged Persistent Thymus". The baby had convulsions when 1 week old. The presenting symptoms were blueness since birth, difficulty with respiration and inspiratory crow or stridor, some evidence of rickets and a prominent and bulging sternum. An x-ray plate showed a broadening of the superior mediastinal shadow. X-ray therapy was given and the first treatment caused sufficient shrinking of the thymus to relieve symptoms; 3 treatments are, as a rule, sufficient to produce a cure.

Dr. Waters showed a case of "Herpes Zoster" affecting the sciatic nerve, a condition which he said was quite rare.

Dr. H. Franklin presented a specimen and x-ray plates from a case of "Multiple Gastric Ulcer" treated by subtotal gastrectomy, with a resultant cure. Quite a discussion took place as to the value and necessity of subtotal gastrectomy as compared to gastro-enterostomy and medical treatment. It was brought out during the discussion that peptic ulcer treated medically has periods of remission and that the patient must be careful of diet and mode of living at all times. Cases which bleed frequently and show marked loss of weight had better be operated upon. In the duodenal type, gastro-enterostomy seemed to be the operation of choice. Because of the frequent recurrences and probable malignant degeneration, the gastric type of peptic ulcer should be treated radically.

Dr. L. Franklin showed a specimen of "Intraluminal Lipoma of the Sigmoid" which had produced obstruction; this was removed at operation and the patient recovered.

Drs. Immanuel Pyle, L. Franklin, H. Franklin, Waters, Perkel, Jaffin, Fineberg and Heilbrun took part in the discussion.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Carteret Club, February 13, President Seely presiding.

Following reading of the minutes, the President announced that Dr. A. W. Atkinson had a very interesting subject to bring before the meeting, and Dr. Atkinson spoke on the subject of "The Rachitic Pelvis in Parturition".

In the discussion which followed, the symptoms, diagnosis, treatment, and difficulty in delivery of the parturient woman, were most interestingly debated, the differential diagnosis between spondylolisthesis and the true rachitic pelvis being the main point of discussion.

Dr. F. G. Scammell then gave a very detailed account, illustrated with drawings, of a case of malformation of the hypogastric arteries with reference to the production of a constriction causing a most abnormal constipation in a young child. Dr. Scammell recited the symptoms leading up to the definite indication for operation, describing in a very clear manner, with the aid of sketches, the findings upon opening and examining the abdominal organs. The patient making a rapid recovery with alleviation of previous ailment.

Dr. Samuel Sica spoke entertainingly on the subject of "Hypernephroma"—giving in detail the record of several cases coming under his observation. Drs. Sommer and West reported several interesting cases, relative to gunshot wounds, with their sequels.

The Treasurer reported 138 paid-in-full members. Dr. Haggerty urged the members to active duty upon being given the privilege of hearings on the several medical legislative bills about to be presented.

Dr. W. J. H. Abey, of Pennington, was elected an active member.

Drs. H. L. Davis and M. H. Friedman were made Associate Members.

The applications of Drs. C. W. Carroll, B. A. Hirschfield, J. A. Holland and T. J. Walsh were read and referred to the Membership Committee.

The Committee appointed by the President to draw Resolutions on the death of Dr. J. M. Carnochan, submitted the attached report:

Dr. John McDowell Carnochan, one of Princeton's leading and best-loved citizens, passed

away at his home, 34 Mercer Street, Princeton, N. J., December 12, 1928, after a 3 years' illness. The flag on Nassau hall was lowered to half-mast in his honor.

Dr. Carnochan was born at York, Pennsylvania, 55 years ago. He was graduated from Princeton University in 1896, and 3 years later received his medical degree from the Medico-Chirurgical College of Philadelphia. After serving in the Moses Taylor Hospital and the Hillside Home in Scranton, he came to Princeton, and began practicing as assistant to the late Dr. J. W. Wikoff, where he remained until the death of Dr. Wikoff in 1904. He then opened his own office.

Dr. Carnochan was a member of The Mercer County Medical Society, of the Masonic Order, and of The Cap & Gown Club of Princeton University, Director of the Princeton University Infirmary, and for a time the medical director of the Princeton foot ball team. During the World War he served as a member of the Mercer County draft board, and contract surgeon of the S. A. T. C. at Princeton.

Dr. Carnochan served on the Board of Council for Princeton for 2 terms, and was a director of the First National Bank of Princeton.

Dr. Carnochan was personal physician to Woodrow Wilson during his term as President of Princeton, and as Governor of New Jersey.

Dr. Carnochan was married to Miss Olivia Marsh Stiger, of Princeton, in 1907. He is survived by Mrs. Carnochan, a son, John M., and a daughter, Cathleen.

Whereas, God in his infinite wisdom, has removed from among his frlends, Dr. John M. Carnochan, be it resolved that we, the members of The Mercer County Component Medical Society, have spread upon the minutes this resolution, as an expression of our loss of our beloved associate.

Also, that a copy be sent the bereaved family as an evidence of our sympathy.

Signed,
A. K. Bowman,
George J. Immer,
C. F. Adams, Chairman,
Committee.

MONMOUTH COUNTY

Daniel Traverso, M.D., Reporter

The regular meeting of the Monmouth Medical Society was held January 30, 1929, at the Berkeley Cartaret Hotel, Asbury Park, N. J. The meeting was called to order at 8:30 p. m. by Dr. James F. Ackerman, President. The minutes of the previous meeting were read and approved. The meeting was well attended, 40 members being present.

After the regular business meeting the society had the pleasure of hearing Theodore D. Parsons, Attorney, of Red Bank, N. J., on "Medical Testimony"; and Judge Ward Kramer, of Asbury Park, on "The History of Medicine".

After brief discussion a buffet luncheon was served.

OCEAN COUNTY

George W. Lawrence, M.D., Reporter

The Winter meeting of the Ocean County Medical Society was held in Lakewood, February 13, at 6 p. m. at Murray's Log Cabin, River Avenue, near the hospital. A very bountiful dinner was served before the actual business of the meeting began. Fifteen members of the society were present and we had, as our distinguished visitors, Dr. Mulford, President of the State Medical Society, Dr. Newcomb, Councilor of the Fourth Division, and Dr. Tracy, Treasurer of the Burlington County Society.

With Dr. Thompson, President of the Society, in the chair, the meeting went through the usual routine of the reading of minutes of the previous meeting and other business, together with 4 applications for membership. One of the applicants has been a persistent applier, and has been denied admission on previous occasions. We understand that he applied to the State Society and also to the A. M. A. for aid in helping him become a member of this county's association. A letter was read from Dr. Ill, concerning this applicant, and the secretary was authorized to answer the letter stating the facts that the applicant did not receive sufficient votes for election and therefore had not been taken into the society. It seemed to be the opinion that county societies have jurisdiction over membership and if any person is denied membership, an appeal to the State Society or to the A. M. A. need not necessarily change the decision.

After business was disposed of, Dr. Ephraim R. Mulford, of Burlington County, President of the State Society, gave a very apt talk concerning county societies, their aims and objects. He also called attention to the importance of cooperating with the various health societies which have come into existance in the state and counties, urging the medical men to take part wherever they could do so and try to have these organizations work as adjuncts to the medical profession. He called particular attention to health examinations and the desirability of doctors making them whenever called upon to do so. He spoke of the Woman's Auxiliaries and the valuable work they were doing in various parts of the state and also spoke of the Bills up for consideration in the Legislature at this time. As Dr. Newcomb, of Brown's Mills, is Assemblyman from Burlington County and also our Councilor, this question was left for him to discuss and present.

After Dr. Mulford's very fine talk, covering many other points, he summed up the functions of the County Medical Society into 3 main parts: The clinical or professional discussions, the social, and, last but one of the most valuable points, medical economics. It seems that the medical profession is changing somewhat from a purely professional view-point into more of a business organization and with these changes it becomes very necessary for doctors to give more attention to that side of the question.

Dr. Newcomb followed with a short talk concerning the various bills which are now up before the Assembly. He called special attention to Senate 44 and Assembly Bills 25 and 145. He very clearly showed the vicious points in these bills and urged all members of the Medical Society to interview their Assemblymen and Senator and try to prevail upon them to vote against these bills, if they should be reported out of committee. He also spoke of the bill, which he had introduced, concerning the payment of bills of accident cases; making the hospital and doctor's service a first lien on any insurance money due the injured party.

The society voted unanimously to use all influence as a body and individually to have the first named bills opposed by our representatives

in this county and also to have Dr. Newcomb's bill passed.

Dr. Abraham Goldstein had brought a paper for this meeting, but as the hour was quite late it was advised that he would have an opportunity to read this paper at the next meeting.

PASSAIC COUNTY

Francis W. Ash, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held February 14, at the Health Center, with 65 members and 1 guest, the President of the Medical Society of New Jersey, in attendance.

Dr. P. A. Dingman reported "Two Cases of Large, Full-Thickness Skin Graft".

Dr. Markel presented "Two Cases of Bradycardia, Illustrated by Electrocardiographs".

Dr. Alan DeForrest Smith, of New York City, read a very interesting paper on "Pain in the Low Back Caused by Structural Variations in the Spine". (This paper will appear in full in a later issue of the Journal.)

The clinical presentations and the paper were all liberally discussed by the members present.

Dr. Ephraim R. Mulford, President of the State Medical Society, thanked this society for its active coöperation in the antidiphtheria fight and discussed at some length the several bills now pending in the state Legislature. He also urged the society to greater activity with regard to periodic health examinations and advised that every member make it a rule to submit himself to examination on each successive birthday.

Dr. Morrill, of the Legislative Committee, reported that the Passaic County Senator and Assemblymen had been approached with reference to pending legislation and that he believed a favorable impression had been made upon these legislators.

SALEM COUNTY

William H. James, M.D., Reporter

The Salem County Medical Society met at the Memorial Hospital in Salem on the afternoon of February 13.

After other routine business was completed, Dr. Davis gave a general résumé of the Bills that are to come up before the Legislature this Winter.

Owing to the absence of Dr. L. H. Hummell, on account of sickness, who had been appointed essayist for this meeting, Dr. C. L. Fleming presented a very interesting paper entitled "Explanation of Some of the Newer Forms of Infant Feeding". He gave an exhaustive account of the different forms of feeding and the way to prepare the different fods. This paper was discussed at length and a number of very interesting points were brought out.

On conclusion of the discussion, Dr. Fleming was given a vote of thanks for his paper and his kindliness in helping out.

Besides the members of the society present there were: Drs. Stout, of Wenonah; Paul M. Pegau, of Woodbury; B. A. Livengood, of Swedesboro; E. E. Downs, of Swedesboro; and C. P. Lummis, of Bridgeton.

After conclusion of the meeting, the society enjoyed a chicken dinner at the Hotel Johnson.

The next meeting will be held at the Memorial Hospital on Aprid 10, 1929.

SOMERSET COUNTY

Lancelot Ely, M.D., Reporter

The Somerset County Medical Society held a regular meeting Thursday, February 14, in the Nurses' Home, Somerset Hospital, Somerville. Ten members were present. The usual routine business was transacted. Attention was called to Assembly Bill No. 25, and each member was urged to take action with his legislator to have this bill defeated. The society unanimously favored a letter which is to be sent to Asemblyman Kuser stating our position in regard to the bill. Dissatisfaction in regard to the Knickerbocker Collecting Agency was discussed, and the member of the Welfare Committee from the county asked each physician who had grievances against the Agency to put the matter in writing so that it could be submitted to the Welfare Committee.

A very interesting and instructive paper was read by Dr. Benjamin Borow, of Bounk Brook—"My Experiences with Spinal Anesthesia". An interesting discussion followed.

UNION COUNTY

Summit Medical Society

W. J. Lamson, M.D., Secretary

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines, on Tuesday, January 29, at 8:30 p. m., with the President, Dr. Krauss, in the chair, and Dr. Lawrence entertaining.

Present: Drs. Bensley, Bowles, Burritt, Byington, Disbrow, Eason, Hallock, Johnston, Krauss, Lamson, Lawrence, Meeker, Meigh, Milligan, Moister, Morris, Smalley and Tidaback, and Drs. Thomas and Messina, of Summit, as guests.

The paper of the evening was read by Dr. E. A. May, of Newark, on "Radiotherapy". In malignant conditions this offers a most valuable method of treatment, either alone or combined with surgery. Operable cases are frequently benefitted by pre-operative as well as postoperative radiation. There are many inoperable cases where radiotherapy cures, and others where it at least alleviates pain, stops hemorrhage or arrests further growth. In facial cancers a better cosmetic result is obtained than by surgery. Sacomas do especially well under radiation. Skin cancers, too, are pecullarly suitable to its use, and some brain tumors have been treated, with remarkable results.

Radium has the advantage of being capable of insertion directly into cavities or tumor masses.

Many benign conditions also yield to radiation. Fibroids are easily cured, as well as menorrhagia. Many dermatoses, such as warts and corns quickly disappear. Carbuncles, too, are benefited, as well as tubercular and other glandular conditions. The thymus and thyroid respond well to radiation.

Infected tonsils are best treated surgically. Temporary benefit may sometimes be obtained in leukemia and hemophilia by splenic radiation.

Radiotherapy is of great value when used in conjunction with surgery.

The discussion was general and of an interesting character.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Ephraim R. Mulford.....Burlington
First Vice-President, Andrew F. McBride.....Paterson
Second Vice-President, George N. J. Sommer.....Trenton
Third Vice-President, John F. Hagerty.....Newark
Corresponding Sec., William J. Carrington....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Norton L. Wilson, *Chairman*.....Elizabeth
James Hunter, Jr., *Secretary*.....Westville
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
Lucius F. Donohoe.....Bayonne
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires, 1932	George H. Lathrope, Newark
Second District	" " 1931	B. S. Pollak, Secaucus
Third District	" " 1930	Martin W. Reddan, Trenton
Fourth District	" " 1929	Paul M. Mecray, Camden
Fifth District	" " 1933	J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

W. E. Darnall, Chairman	Term expires	1929
R. K. Hollinshed	" "	1930
Lancelot Ely	" "	1931

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City	Term expires	1929
J. Finley Bell, Englewood	" "	1929
Thomas B. Lee, Camden	" "	1930
Henry Spence, Jersey City	" "	1930
H. Garrett Miller, Millville	" "	1931
Harvey S. Brown, Freehold	" "	1931

Committee on Credentials

William J. Carrington, *Chm*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty	Term expires	1929
B. S. Pollak	" "	1929
W. Blair Stewart	" "	1930

Alternate Delegates

George H. Sexsmith	Term expires	1929
Philip Marvel	" "	1930
S. B. English	" "	1930

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark	Term expires	1930
Edward J. Ill, Newark	" "	1929
J. Bennett Morrison, Newark		Ex-officio
Ephraim R. Mulford, Burlington		Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*	Term expires	1933
Paul M. Mecray	" "	1934
John Nevin	" "	1929
B. S. Pollak	" "	1930
H. Garrett Miller	" "	1931
Thomas W. Harvey	" "	1932
Elias J. Marsh, *Treasurer*		Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton	Term expires	1931
William G. Schauffler, Princeton	" "	1929
William D. Olmstead, Atlantic City	" "	1930
Ephraim R. Mulford, Burlington		Ex-officio
J. Bennett Morrison, Newark		Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm*.....Paterson
Howard S. Forman.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield

Committee on Business

Emanuel D. Newman, *Chm*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
Ralph K. Hollinshed.....Westville
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
James S. Green.....Elizabeth
Edward Guion.....Northfield
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
George H. Lathrope.....Morristown
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
B. C. McMahon.....Morristown
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark
George T. Tracy.....Beverly
Clarence W. Way.....Sea Isle City

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.

NOW IN OUR NEW LOCATION

Accurate Prescription Glasses

As we do not sell glasses without a prescription we depend upon the Oculist for our business.

The Oculist and patient can rely upon us for absolute accuracy and service.

All lenses are ground to precision in our own Laboratory. Ours is the oldest optical house in New Jersey, having been established in 1892. Our new building is designed to render increased service and efficiency.

New Location
10 HILL STREET
One door from Broad St.
NEWARK N. J.

J. C. Reiss Optician

Hill Street
Is on the West side of
Broad St.
Opposite City Hall
Where parking is possible.

Member of the Guild of Prescription Opticians of America.

ANNUAL MEETING—JUNE 12, 13, 14, 15
Haddon Hall, Atlantic City, N. J.

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918

OF MEDICINE
APR 12 1929

Vol. XXVI., No. 4. Orange, N. J., April, 1929 Subscription, $3.00 Per Year
Single Copies, 30 Cents

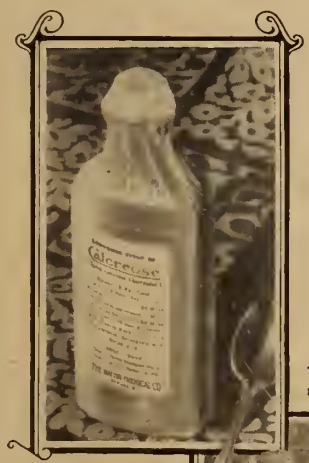
CONTENTS

ORIGINAL ARTICLES— Page
The Religion of the Third Frontal Convolution—Dr. Gordon K. Dickinson.... 289
The Heritage of Sanitation—Dr. B. S. Pollak 293
The Middle of the Road—Dr. Harold Ball Disbrow 298
Complications of Urethral Stricture: Occurrence in 1244 Cases—Dr. Meredith F. Campbell 300

ORIGINAL ARTICLES— Page
A Plea for the Routine Use of Blood Pressure Tests—Dr. Francis Ashley Faught 307
Diagnosis of Gall-Bladder Disease by Means of X-Rays—Dr. J. J. Quiney..... 311
Essex County Society Presidential Address—Dr. Max Danzis..... 313
The Treatment of Menstrual Disturbances Incidental to Puberty—Dr. A. A. Rubin. 316

Continued on page VI.

ACHIEVEMENTS



Compound Syrup of
Calcreose
Alcohol 5 Per Cent
Each fluid ounce
Represents:
Alcohol—24 Mins.
Chloroform Approximately
3 Mins.
Calcreose Solution
160 Mins.
(Equivalent to 10 mins. of creosote)
Wild Cherry Bark
20 grs.
Peppermint Aromatics and Syrup
q. s.
Tasty, effective, does not nauseate.

Tablets
Calcreose
4 grains
Each tablet contains 2 grains of pure creosote combined with hydrated calcium oxide.

which meet your therapeutic requirements!

WHEN Maltbie made Calcreose available for the treatment of Bronchitis, Tuberculosis, Intestinal and Urinary Affections, the medical profession was given a product through which the full therapeutic effect of creosote could be secured even though the patient may have a sensitive stomach.

Calcreose is a loose chemical combination of pure creosote and hydrated calcium oxide. The creosote is slowly released from Calcreose and this provides a prolonged and effective action which is very helpful. Leading druggists carry Tablets Calcreose 4 grs. and Compound Syrup of Calcreose for prescription purposes. Samples gladly mailed to Physicians.

Maltbie Chemical Company, Newark, New Jersey

MALTBIE Calcreose

THE NIGHT CALL

MEAD'S

Mead's
Dextri-Maltose
For Infant Feeding

No. 1
With 2% Sodium Chloride for Normal Infants.

No. 2
Salt Free

No. 3
With 3% Potassium Bicarbonate for constipated Infants.

"The Night Call"—a reproduction 13¼ x 12" in color from the original suitable for framing will be sent on request.

FOR fifteen years this big man in the fur coat has been devoted to the call of service in his chosen profession. Fresh and determined from the medical school, he took over the old doctor's practice. At first it was said he never could, even in a small measure, compensate the community for its loss when the old doctor passed on. But time has proved that he could.

The old doctor imparted to the other some of his own wisdom, his own patient philosophy of life and service. The younger man, sensitive and a seer in his own right, builded on from his own experience through the practical application of his knowledge of medicine and the personal art of being human and humane.

So into his training passed the long discipline of study and preparation, together with that more rigorous responsibility to answer the summons when duty calls, whenever, wherever or for whatever the need may be.

He may watch for hours upon end without sleep, eat but little, relax never, yet no one hears him complain. No one thinks he ever becomes weary, or longs for a respite and so day or night, in season and out, when the telephone rings a voice carries back, "*This is the doctor. Yes, I will come.*"

MEAD JOHNSON & COMPANY
EVANSVILLE, INDIANA
Makers of Infant Diet Materials Exclusively

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 4 ORANGE, N. J., APRIL, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

THE RELIGION OF THE THIRD FRONTAL CONVOLUTION

Gordon K. Dickinson, M.D.,
Jersey City, N. J.

"I've studied now Philosophy,
And Jurisprudence, Medicine—
And even, alas! Theology,
From end to end, with labor keen;
And here, poor fool! with all my lore,
I stand, no wiser than before."
Goethe in *Faust*.

Aeons of time have developed man's brain so that in the fore-part, just over the orbits, are 3 convolutions, poorly developed in the ape and not found in the lower animals. It is thought that herein, particularly the third, resides the higher intellect. Without this we find the emotions dominant, and in proportion as this convolution, the last in evolution, is developed and differentiated, are we wise, logical and able to reason. It is the most divine attribute we possess and we are obligated to exercise it. Culture and civilization demand that we suppress our emotions and cultivate thought and reason. Very few do so. Some a little, for most people are willing to have some one else do their thinking for them. This tends to bigotry, as history demonstrates.

One morning, about 3 o'clock, with the air cool and crisp, we left Landschut in southern Germany for a trip to Salsburg and the Königsee. We drove rapidly through the dark, stars bright overhead, occasionally seeing the field workers, men and women, on the way to their day's labors. By 6 a. m. we had reached a small village where we stopped for breakfast, and while at our coffee and rolls, distant music was heard, and, following it up, we came to a small church. Around the outside was a pavement with 2 deep furrows, which we were told had been worn into it by the knees of generations of worshippers creeping around the church with a wooden cross on their shoulders. The interior was not more than 20 ft. in length, yet was crowded with these poor farm-hands all on their knees. The air was so full of incense that only the lights on the altar were visible. The morning sun streamed through the illuminated windows and touched the heads of those worshipping, reminding us of paintings where the Holy Spirit is seen descending from heaven. Several violins were pouring forth music for the mass while the priest chanted the ritual with accurate formality, and, now and then, the tinkle of a bell could be heard as the Host was elevated. One's heart throbbed and a feeling of respect and regard was produced for a worship so appealing. These people, ignorant, unlettered, unacquainted with the world, deeply impressed, their souls lifted up in faith and in hope, were doing, believing and trusting in that which their forebears had done. For generations back, as evidenced by the furrows in the stone walk outside, they had been worshipping in just this manner. When they were born it was to this same religion as to the same language. All their senses were stimulated in the ceremony and the surroundings, and, as

the senses are but the roots of the brain, so their meager intellect was appealed to. The streamers coming down through the windows in the smoke of the incense, the voluptuous music of the violins, the voice of the priest singing the mass in a mysterious tongue, the occasional tinkling of the bell and the penetrating odor of the incense, all combined to one glorious effect. Nothing could be better adapted to stimulation of the different senses and through them the emotions. If it be true that religion is but an emotion, certainly here we had a most effective artistic and scientific stimulation. Nor could anything be more beautiful than the scene here pictured! The grip on the heart and emotions, stimulating faith and encouraging hope at the start of the day's work could not be grander nor simpler.

Human nature demands companionship and needs the association, mental or physical, of some one upon whom to rely. To be alone is a living death, and through this appealing ceremony and ritual the poor worshipper is led to feel that he need give no concern to his life or his future. The priest he sees at the altar is his daily friend; at his birth he baptizes him; a few years later he confirms him; then marries him. He is at his bedside in sickness, and in the final scene gives him absolution and conducts the funeral mass. What could be more suitable for the emotions of the ignorant or the loyal? Ignorant, not in the ordinary meaning, but in the broadest sense for, no matter how well educated, we are all ignorant of what life and death are. Deep within us is the longing to know and we are prone to be satisfied and contented with a promise.

This church has most excellently and properly developed a philosophy and a method which are soul-satisfying. Her devotees love and respect her, and well they should. Whether we consider this small primitive congregation, or the more elaborate ones in the larger cities, (the wonderful ritual of the Notre Dame, in Paris, or St. Peter's, in Rome), every motion is symbolic, every attitude has its meaning, and to those who understand it carries a powerful uplift. The Catholic Church has filled a proper place and has filled it well. It has developed very largely a philosophy of life as well as that of religion and the relation of man to his divinity. Perceiving that the average man cannot comprehend God, the Creator, and that Jesus is even too wonderful to be approached closely, and knowing that to get to the heart of the masses they must come down close to them, it presented to them Mary, the Mother of Jesus. How simple and easy it is to go on the knee to the *mother,* the *woman!* As we enter the Catholic churches we see the celebrants around the "Lady Chapel". Well we recollect in one town where we stopped during a pilgrimage, seeing the women come in flocks, pass up to the "Lady Chapel" and chant. Passing on, another group would come. How more natural for them to do that than if they had but an abstraction, simply a Creator to look up to, for they conscientiously felt they had the right to ask Mary for intercession.

To further cement this religion deeply in the minds of the people and to increase their devotion, the church has many saints, men and women, notable for piety and great sacrifice in life. In many places there are relics, some token which has touched the body or been connected with acts of these noble people. Each saint and each relic is believed to possess a certain quality, a certain ability to give comfort or relief from mental distress, or, further, to cure infirmity. To the outsider, this has a semblance of idolatry, of creating other gods. This is far from the church's purpose, but, if perchance an occasional devotee does lose himself while on bended-knee before the shrine and personifies rather than symbolizes the saint; if the heart be warmed, the conscience quickened and the life bettered as a result; why should fault be found? Are we not all idolaters in one sense or another? Whether in religion or out of religion we all have that which we idolize and perhaps "venerate unduly"; to which we are devoted and which has its reaction on our lives.

The Catholic Church has been stiffened by dogma, creed and tradition, but as it expands over the civilized world, it is naturally modified by the mental and social conditions of

the different nations. In Italy the Catholic Church is more of a routine, while to the Irish people it is their very heart's blood.

All minds are not made alike, however. There is a great diversity and what appeals to the majority does not always appeal to a large minority. Many centuries before Christ there came out of the desert those who knew the stars as few even now know them, knew the strength of the sun and the hardships of life. They migrated to the Green Crescent and gradually there developed a religion and a people, the Hebrews. After the custom of the day, they had a tribal god. They were loyal and steady, and, as time went on, perceived that their god was bigger than the other gods, was more than a tribal god, he was a god of all people. Then he became the Creator, Jehovah, maker of the world as well as all people with the Hebrews. A great truth and a magnificent one!

In the beginning they dreamed what they felt was the truth as to the creation, that which was created, and the Creator. As time progressed, there was added to it their conception of God and the universe. Following the instincts of the day, they accepted the Creator as their individual deity. He was close to them and exerted a powerful influence upon their lives and actions. He was found in the burning bush and on the mountain top surrounded by cloud and lightning. He was felt rather than seen.

Ages passed, experience gained and their God ascended higher unto heaven and was accepted as the God of the world. The Hebrews never had a home or a habitation. They were eternally in trouble, invaded and dispersed, forever wandering. They were sold into Egypt, crowded into Babylon, wandered far into all the surrounding countries, yet wherever they went, they kept their divinity and their language. No matter where placed, how circumstanced through jealousies or oppression because of loyalty to the God which was not that of their neighbors, forced into the Ghetto and to wear the yellow badge, they have remained faithful. If only 2 or 3 were together they formed a synagogue. Oppression and ridicule have only made their religion firmer, their God more sure and their loyalty greater.

These people have given to us that which is the best the world has ever known. Nowhere in all history, even to recent times, can we find the equal of Moses, Amos, Isaiah or the other prophets. They have given us The Book, "The Magna Charta of the soul", which is the finest in all language. It is accepted as the foundation of our religious faith. They gave us Jehovah and have given to us Jesus, a man so wonderful and so pure of heart that our religions are named for Him. Although there have been many great men and wonderful characters, the prophets and priests of the Hebrew tribes stand out as the greatest and most magnificent. They bring to us the greatest uplift. Jesus was one of them. The church of today looks to Him as a christian of our type and viewpoint, but He was a Hebrew of the purer type, beholdeth to the synagogue and to the worship as instituted in it. The Hebrew God was His God, and when He attacked the synagogue it was the perverted one, because religion in His time, as in ours, had its pathology. All that is good, devout and highly spiritual has proclaimed His name. The churches vaunt the ownership of Him, although really founded on his preachment, for He developed no church and gave us no dogmas or creeds. He simply taught in His better way what had been taught by the more ancient wise men, Plato, Buddha, Confucius, Zoroaster—the principles of faith, hope and charity, and added belief in a future life.

The Hebrew Bible, which is our Bible, contains in its records, the history of the race, as well as biographic stories of beautiful lives, allegories carrying truths, adventures, songs of praise, and, woven through it all, that which appeals to the heart of the devout. No other book was ever written that the aged could place in their lap and read day after day with such comfort. Essentially what we all crave is something to lean upon, a buffer between us and adversity, between us and the uncertainties of the future. The more ignorant we are, the more we fear death and that which follows. In the Book of Books,

a legacy from the Hebrews, the heart finds contentment and faith its anchor.

From Israel was bequeathed, also, another excellent characteristic—the love of Nature. In our readings of the Bible it is easily seen what great love the old patriarchs had for God's works and his methods. There is that in Hebraic thought and action which instills a desire for knowledge in the minds of the young. In the past as in the present the Hebrews were athirst for broad education. During the Middle Ages, when knowledge was dimmed because people were lost in abstract religious philosophy and busy developing creeds and dogma, they made excellent copy and preserved the literature which would otherwise have been lost. By the time Luther (preceded by Petrarch) brought about the Reformation-Renaissance and instilled in those tired of mental leadership a desire to study and read and think for themselves, these valuable works were to be procured.

The Catholic Church has bent down to the masses to reach them; the Hebrew Synagogue has carried them up to God in the heights of heaven, teaching that there is but one God, the Creator. This is a strong masculine thought. The Catholic Church conducts its mass in Latin, but does not teach it to the people. The synagogue has its service in Hebrew, but compels every child to study that language so that he may thoroughly understand what is being said.

Every religion has its pathology and diseases, its disciples who vary the teaching of the original to make the living preachment more practicable. Time, changing conditions in civilization, greater knowledge, human activities, and culture have tended to modify, pervert, and, in some instances, destroy. What Buddha taught is not Buddhism; what Confucius taught is not Confucianism; what Jesus taught is not what the churches are demanding. Yet, in spite of centuries of growth and change the spirit of truth remains the same.

Education, development of the mind, and application of our knowledge of Nature and of the philosophies, have greatly increased. The Roman church has crystallized itself. Apparently, it is as firm and immovable as a glacier on the mountain top, but, it too, obeys the law of gravity. The warm sun of truth so acts that even the glacier slowly but surely moves down to where it eventually will melt and flow as a limpid stream on whose banks will bloom the fairest flower.

A religion founded on the senses leads to the development of a different type of character from one founded on adoration of the Creator and his works. The church says, "God made the soul". Intelligence says, "God made the mind". So education, research and the study of God as expressed in Nature and in her laws are having their effects upon all static religions. Instead of worshiping symbols or attempting to worship through creeds and dogma we are developing a loyalty to our Creator and His works.

The Protestant churches are a cleavage from the Catholic. From the High Episcopal Church to the Lowest, any church is but a series of steps. Man has always been and always will be contrary-minded. Some men are round heads, others long. Some are from the phlegmatic north, others from the effervescent south. Women read poetry and love exhibition, men are indifferent to all this. There must be many types of worship to meet the varying needs, but actually, each heart has its own religion, although there be but one God. The universal passion for graven images is deeply rooted as our cave-dwelling instincts and can never be suppressed, nor should it be. The mind of man is as yet poor stuff. He cannot talk in prayer to an abstract Infinite. He must image a being in his mind's eye, the Universal God. Dogmatism, worship of Church or Book make for bigotry and hatred. Brotherly love and mutual service are far better than creeds, for true religion is not a catechism to be taught, nor a ceremonial to be observed, but a state of mind, a mission of brotherhood and healing.

The mind of man is associated with each organ of the body and affected by its individual action, expression being made through the brain which biologically is a periscope. The third upper convolution of the fore-brain

is the latest in evolution. Intelligence is therefore man's last and most noble gift from his Creator. The rest of the brain, aeons older, functions for the emotions and the intuitions, which do not require meditation. Emotion comes spontaneously; requires no effort and is accepted as a mental finality. Action through the fore-brain—the higher intelligence—is work and requires effort.

Personal religion, (faith, hope and worship) is an emotion inherited from the prehistoric man. As we have not evoluted sufficiently to relegate our emotions, so this urge comes to all, and varies in depth, constancy and direction with each individual. It is always associated with symbols.

The hind-brain and the fore-brain have developed through the education of civilization and have made for a science of religion, theological and ceremonial. The fore-brain alone, ridding itself of the emotions, is inducing a true reformation, for the sciences and nature-study compel one to turn toward the "God Above the Blue", the Creator.

The Hebrew religion, founded by the worthiest man in all history, Moses, is idealistic, inspiring, moral loving, and commands attention and respect. The Catholic faith of more recent times is warm, sincere, and develops a love for all expressions of devotion. Biologically and physiologically they are both necessary and through such necessity will be permanent. They meet indications in one's mentality which are very diverse. They are as far apart as rhythmic poetry is from stolid prose, so do not conflict. They correlate and balance each other. According to one's mood one may worship in any religion. In the morning, when we are in vigor, a Presbyterian church may fill the need, but in the afternoon, toward the gloaming, we will enjoy a vesper service with candles and chant.

Who builds his church within his heart
And takes it with him everywhere,
Is holier far than he whose church
Is but a one-day house of prayer.

How many have gone the gamut? Mother belief—doubt—agnosticism—wandering blindly, then at the last, when the trumpet is sounding in our ears, back to home and the beginning—Mother.

The fore-brain looks up and trusts in Nature's ways unquestioningly. It knows the Creator's laws are best and accepts them, worrying not as to the future. The day may come when the clergy will preach *only* the duty of man to man and expound the wonders of God revealed through Nature. The far off star, the Milky Way, the wondrous miracle of a cell, microscopic in size, becoming in a ten-moons a cherished child, a man with a third frontal convolution, for: "THE HEAVENS DECLARE THE GLORY OF GOD AND THE FIRMAMENT SHOWETH HIS HANDIWORK".

The mythology of ancient Egypt tells us that Osiris and Isis had a child whom they called Truth. Out of the nether regions came a Black Demon who took Truth, tore it to pieces and scattered the fragments all over Egypt. A search was made for these fragments in order to find Truth, but portions only were discovered, and at the place where each part was found, a temple was erected for the worship of what that fragment represented. But in all Egypt no temple was built for Truth itself.

THE HERITAGE OF SANITATION

B. S. POLLAK, M.D., F.A.C.P.,
President New Jersey Public Health and Sanitary Association
Secaucus, N. J.

Tradition imposes upon the presiding officer of this honorable Society, a function which has been met yearly by many of my distinguished predecessors, with credit to themselves. The scope of the possibilities of the New Jersey Public Health and Sanitary Association has been reviewed and many phases of health and sanitation have been solved. On being honored by election to the presidency of this organization, it became apparent to me that to uphold the dignity of its concept, it would be a most difficult mat-

ter to bring to your attention any new phases of health propaganda, unless they were limited to some special branch. Consulting with an intimate friend, concerning the scope of my address, it was suggested that a review of the earliest history of health and sanitation might properly engage our attention.

Recently, there appeared in several articles, references to the fact that Jews were less prone to tuberculosis and more susceptible to diseases of metabolism. At the same time I read an article, published in England, relative to the morbidity of cancer and therein found a statement which, in a way, seemed to indicate that cancer had a lower morbidity among Jews, than other people. In so far as tuberculosis is concerned, we have long since found the reason for the supposed lower morbidity rates.

These facts, together with the suggestion of our Past-President, Dr. Gordon K. Dickinson, decided the title of this paper, to wit, "The Heritage of Sanitation", a study which I found most interesting.

As our knowledge of the causes of disease has widened, there has been an ever growing demand that where sickness can be shown to be preventible, steps should be taken to prevent it. Adulteration of food, especially of milk, unsanitary working and housing conditions, are fair examples of predisposing and aggravating causes of sickness.

That which is true of civil life, is equally true of military life, for nowhere has preventive medicine shown greater possibilities than with the armies of the field. We need but recall our Spanish war; deaths from disease were largely in excess of those due to the enemy (the proportion being 5 to 1); the reverse is now the case. To accomplish this, emphasis should be laid upon the factors that have contributed to this state of affairs:

(1) An adequate supply of pure water.

(2) Preservation of food from contamination.

(3) Prompt and effective disposal of all decomposable matter.

(4) Personal cleanliness.

(5) An efficient control of infectious diseases.

(6) Avoiding overcrowding.

(7) Adequate diet.

As we study the Pentateuch, written by Moses, 3000 years ago, the astounding fact that all of the enumerated agencies, useful and employed by us in the control and prevention of diseases, were known in that period becomes apparent. In passing, we need but briefly refer to the plagues in Egypt, at the time of the exodus, to comprehend his vision. Further on, we learn of the legislation on hygiene. (1) Preservation of water. (2) Disposal of organic refuse. (3) The danger of flies, manure, kitchen refuse. (4) Disposal of the remainder of sacrificed animals. (5) The incinerator. (6) Burial. (7) Personal hygiene. (8) Circumcision. (9) Control of infectious diseases. (10) Venereal diseases. (11) Leprosy. (12) Infection from dead bodies. (13) Legislation on dietetics. (14) Necessity of food control. (15) Suitability and adequacy thereof. (16) What was allowed. (17) What was prohibited. (18) Fish allowed. (19) Birds. (20) That which dies of itself, or is killed by other animals. (21) Diets, between the exodus and the arrival at the Jordan. (22) Moses as food controller. (23) Lack of vegetables and fruits. (24) Fresh milk and butter. (25) Water, not contaminated by the dead. (26) Deficiency in quantity and quality of food. (27) Deficiency diseases.

A careful perusal of these Books reveals the surprising fact that among the ancient Israelites there did exist a definite system, both in civil and military spheres, which had for its object the preservation of public health. How did those people come by this system? A small part, no doubt, was derived from their old tradition. There is no tribe or race, which has not had, even in the most remote period of its history, some crude rudimentary and ill-defined gropings after means whereby the well-being of the community might be protected. The Children of Israel were no exception to this rule; indeed it is well known that some were probably survivals of old customs handed down from their semitic ancestors. The greater part, however, might have been evolved slowly, as the result

of experiences, both of their own and of other nations, with which, sooner or later, they came in contact. In this way they would have learned something during their prolonged sojourn among the Egyptians, whose evil diseases they knew and could hardly have escaped; especially those of the skin, which were then, as now, widespread and obvious.

"If Israel will keep God's covenant," we read, "the Lord will take away from thee, all sickness; and He will put none of the evil diseases of Egypt, which thou knowest, upon thee. Conversely, if Israel will not observe His Laws, He will bring upon thee all the diseases which wast afraid of." We find a detailed list given: Consumption, fever, inflammation, fiery heat, the boil of Egypt, scurvy, the itch, of which thou canst not be healed, madness, blindness, astonishment of heart.

The phrases, "Which thou knowest" and "Which thou wast afraid of" make clear that the Israelites had only too close an acquaintance with the terrible ravages and of maladies that have, from time immemorial, been a curse to Egypt. But, before these experiences, however numerous they were and however large the number of individuals among whom they associated, could be collated, sifted, interpreted and utilized for the benefit of the community as a whole, it is obvious that much time and labor would be required; yet something far more important than time and labor, was needed.

Qualities of rare order, seen in combination in only a few of the world's greatest men, are revealed in the work of Moses, the Sanitarian, one of the founders of preventive medicine, so, the question is not, "How did the Israelites come by their system" but, "How did Moses come by it?" And, further on, how was he enabled to impose himself and his dictum upon the people, who, at first, put him aside with the taunt, "Who made thee a prince and judge over us?" Is there an indication that they were dealing with a superman, a miracle, created for the need of the hour? No, there is sufficient information in the Bible to show that the facts can be explained naturally: (1) By his early training. (2) The phase of his development. As to his training, we know of his adoption by Pharaoh and his sojourn in the royal house of Egypt, for it was a tradition among the Jews that he was instructed in all the wisdom of the Egyptians. In this way he would have become familiar with what was known of medicine, such as it was, for medicine was then largely overlaid by superstition. Probably he had been taught something, however rudimentary, of the elements of sanitation and state medicine and thus obtained his first ideas of the prevention of disease. He would have seen many examples of the evil diseases of Egypt and thus had ample opportunity to acquire wisdom of statecraft; he thus came into contact with the machinery of government and learned the necessity for some central power which would keep the various units welded together as a state, guide and control internal affairs by the issue of laws, and represent the state in matters relating to foreign affairs. Through his environment he therefore learned the mannerism of those accustomed to govern, a fact which stood him in good stead and yet, in spite of education, leadership and what not, he was rejected by his own people.

We have made reference to the phase of his full development and must quickly pass a period of his life replete with opportunities for observation and thus we find his intimacy with the Sheikh Jethro, giving him abundant further opportunities for learning tribal laws, customs and habits of the desert, thus increasing his statecraft and probably, also, working out many of the problems, which he could foresee would come up for solution when Israel was emancipated and had become an independent nation, requiring its own constitution and its own code of laws, social, economic, public health and the rest.

Let us illustrate some of the ways by which he could turn his observation into knowledge: By closely observing the habits of the fauna, domestic and wild, of the districts in which he moved about, he could have made his deduction of the foods, which were and which were not fit for human food, or again, by many years experience with his flocks he may have learned some principles of eugenics by noting the bad effects of close imbreeding,

(this is not so improbable, when we remember that many years before this, Jacob had made profitable experiments with in-breeding) which would have helped him afterward, in his compilation of the table of kindred and affinity. (It is interesting to observe that Moses himself was the issue of one of the prohibited marriages, that of a man with his aunt.)

As we trace the life of this man, step by step, we can see that he understood the requirements of the times, and was duly, truly prepared. Gifted as we find him, we find the people in general, superstitious. To have made any attempt to teach these uneducated people, even the elements of hygiene as such, would seem impossible. He could not issue merely routine orders, as is the case in the army now. The Israelites could not have understood a word of them. How then was the object achieved? There is even in the primitive races an instinct for some kind of religion; every nation under the sun worships something or somebody; this religious sense (emotion) is evolved long before the sanitary sense, hence "Godliness comes before cleanliness" and the teaching of holiness must therefore have first place in development of the natural instruction. Thus, the Children of Israel were taught to regard themselves as their God's peculiar people; they were given ocular demonstrations of His power in the exodus and in the events preceding it, and many convincing proofs of His care for them afterward.

The relation between Him and his chosen was of an intimate and personal character, and their religion was to be the supreme factor in their daily lives. This was to be signified by the sanctification of every human act —"Ye shall be holy; I, the Lord, your God, am holy."

The teaching that "cleanness" was an attribute of holiness, that uncleanness was unholiness, thus a strong link was forged between godliness and cleanliness, not because inattention to these matters would bring disease, which they would not, as yet, have been able to comprehend, but because to be clean was acceptable, and the opposite an offense in the eyes of their God, for we read: "For the Lord, thy God, walkest in the midst of thy camp, therefore, shall thy camp be holy, that He see no unclean things in thee and turn away from thee." The object, namely, the inculcation of the laws of hygiene, was, therefore, attained by way of appeal to religious instincts. Sound, sanitary teaching being conveyed through the medium of a prescribed and often elaborate ritual. This had but one defect, it did not insure its lasting effect.

The broadest interpretations of the Mosaic concept are still in vogue—they form the superstructure upon which rests our present day mode of life, and we rightly ask, in view of the fact that most of modern hygiene is but a century old, what happened during the period of 20-25 centuries that things remained in *statue quo?* Why did not other nations answer? Why did not the Jews themselves, keep the lamp burning? With regard to the latter, the answer may best be summed up in the phrase—absence of a compelling motive. Not only in religious affairs, but in every region of human life, wherever an elaborate ceremonial is the external explanatory symbol of an essential internal idea or thought, there is always danger of the ceremonial becoming exalted at the expense of the idea until the latter is lost and the ceremonial becomes supreme, though meaningless and empty. The ceremony prescribed by Moses was to serve only as the connecting link between the holiness and the modern life—as long as the essential spirit was preserved, for so long was the ritual no more than a symbol.

It is a matter of history that the Jews fell away from the spirit of the law, whilst the letter of it, namely, ceremonial observance, was given a high place and became barren. The close relation between holiness and cleanness, that is, hygiene, personal and general, has always been shown. Further, disease was always understood by the Israelite, to be the act of God, as a punishment for sin. They were constantly taught that God could send or withhold disease and recovery from disease at His will.

Now let us examine the organization that was inaugurated by Moses for this purpose. The Bible is not a treatise on medicine, and

naturally we do not find any organization described as such in its pages. It is only by piecing together isolated fragments, dealing with this question, scattered throughout the books of Leviticus and Numbers, that we find there was a system for the control of infectious disease. The outlines of this control are most clearly seen in orders governing the subject of leprosy; for instance, if the priest was certain that he had to deal with a case of this disease he was at once to pronounce the patient unclean; he was a leper. Among the rules to be observed by a leper were these: "All the days wherein the plague is in him, he shall be unclean; he shall dwell alone; without the camp shall his dwelling be." That is, he was to be isolated. But difficult cases had to be encountered, where the priest could not be certain of his diagnosis, for example: "If the bright spot be white in the skin of his flesh, and the appearance thereof be not deeper than the skin, and the hair thereof be not turned white, then the priest shall shut up him that hath the plague, seven days; and the priest shall look on him the seventh day; and behold, if in his eyes the plague be at a stay, and the plague be not spread in the skin, then the priest shall shut him up seven days more; and the priest shall look on him again the seventh day; and behold, if the plague be dim, and the plague be not spread in the skin, then the priest shall pronounce him clean; and he shall wash his clothes and be clean."

There is one other matter to which reference ought to be made, and that is circumcision. That was not a Mosaic institution, nor was it by any means a practice confined to the older Hebrews. It was indeed very widespread and of great antiquity, being regarded at first, apparently, as social, rather than religious or hygienic procedure. The significance seems to have been that it was an initiation into manhood, for in the majority of tribes it was not performed until about the age of puberty; an uncircumcised youth was not a full member of his tribe, nor was he allowed to marry. But there was this distinctive feature about circumcision among the Jews; it was performed in infancy, which is more humane and undoubtedly more hygienic. With the Hebrews again, circumcision was given a definitely religious character, though long before the age of Moses. But, whatever be the origin of circumcision, it remains a fact that it is a health measure, beneficial in many ways that need not be specified here. Indeed, some writers have gone so far as to put down all the remarkable achievements of the Jews throughout many centuries, in all the countries of the world, largely to this one measure of precautionary hygiene. That is, perhaps, going too far, but it is certainly true that practically all modern instructed opinon regards it as of considerable value.

Although this custom did not originate with the Jews, and has been noted in primitive tribes separated by vast tracts of ocean and continent, yet, in later years, among the more or less civilized races of the world, e.g., Greeks and Romans, it would appear to have been confined to the Jews living in their midst. This fact bears out the statement regarding the non-assimilation of the Jewish customs in olden times. In those days this practice was still carried on as a religious rite, and its hygienic worth was not yet recognized.

Scientific medicine, as we understand it, thus found no place among them, in the time of Moses, and in later years, when the Jews failed to retain the old spirit of holiness, it was inevitable that their hygiene, known to them only as an attribute of holiness, should not only make no progress but actually retrograde. The compelling motive was gone. It must be remembered too that scientific medicine is an outgrowth of the modern scientific spirit and is of no greater antiquity than the sixteenth century of the present era. It is this scientific spirit that is the compelling motive of the day and, the more it is attended by inventive genius, the more compelling does the motive become. Then, too, as far as other nations were concerned, there were two factors which must have tended greatly to hinder the assimilation of Jewish practices. In the first place, the antagonism manifested against them, so that is was most unlikely that their customs would be absorbed by the people surrounding them, especially when those customs were of a religious aspect; and,

secondly, the Jewish books were largely written Hebrew, Chaldaic, Aramaic, Syriac, Arabic, etc., so that any dissemination of Jewish learning was practically impossible. In considering the Mosaic code, it must be remembered that it was not brought to its final form, that is the Pentateuch was not edited, until several centuries after the death of Moses, but the nucleus is Mosaic and it has been thought convenient that the plan adopted therein, contrary to all hygienic ordinances, should be adhered to.

We have hereby briefly indicated that there are found within the different sections of the Mosaic code, many fragments which, when gathered together, point unmistakably to the existence of a fairly complete system of preventive medicine. It is indeed one of the most remarkable pieces of work ever accomplished, so remarkable that it is amazing that for thousands of years it should have been lost sight of. It was an anachronism and suffered the fate of anachronisms, for it was not understood. But we, in these later days, can better appraise the value of Moses' achievement. Having traced its genesis and development, it is possible for us to appreciate at their true worth, the depth and breadth of the knowledge and the acuteness of the observation that could alone have produced such a result. It must have been uphill work for him all the way through and, as has been shown before, there were failures at times. But his fundamental principles were so sound, as sound now as they were then, his laws so clear, his attention to detail so marked, and his spirit so undaunted to the end, that when there was a failure the blame should rather be laid at the door of the *congregation*—surely the most unpromising material with which a zealous administrator ever had to deal. The code of Hammurabi, about 800 years older than the Mosaic code, deals only with civil and criminal matters. There is no preventive medicine mentioned in it. Doubtless the Egyptians, for all their superstitions, had some rudiments of hygiene. Doubtless the diagnosis and treatment of disease and injury had been practiced since the dawn of the human race, but preventive medicine, however unconsciously it was inaugurated, began with Moses.

After all, no law, and especially no prohibitory law, can be enforced upon great bodies of men in defiance of public sentiment. Moses died after governing Israel but 400 years—and Israel still lives, largely because of obedience to Mosaic law for nigh 40 centuries. The laws of Moses and his predecessors, coadjutors and successors, in their sanitary as well as their moral and economic aspects, are thus additional evidence of the high state of intellectual civilization and spiritual development early attained by the nation whose constitution and statutes they became.

As we contemplate the subject matter before us, we must come to realize that, although we live in modernity, the pages of our history and the prophetic utterances of our seers and sages compel us to realize that the Bible is an exhaustless "Fountain of Truth", the storehouse from which all of our golden principles are derived and, guided by its instructions, we may appreciate that golden age when the fetters of prejudice shall be broken, the shackles of mental and moral bondage fall off, and man, redeemed from the slavish life of passions, will assert his high birth right and own the ties which bind him in universal consanguinity with his fellow-man.

THE MIDDLE OF THE ROAD

Harold Ball Disbrow, A.B., M.D.,
Lakewood, N. J.

Again the request has come to me to read a paper before the Ocean County Medical Society, with no stipulation as to subject or length of time which may be consumed. I have tried, therefore, to choose a subject which might be of interest to all and, at the same time, short enough to preserve your friendship.

Since beginning the practice of surgery, I have spent an average of 5-6 weeks each year dropping in at various clinics both in this country and abroad in an attempt to bol-

ster up my limited knowledge. I have not usually worshipped at one shrine over a great length of time, but have popped up unceremoniously in clinics good, bad and indifferent, watched proceedings for a few days or a few weeks according to the interest inspired, and then, like the fabled Arab, folded my tent and stolen away.

I have learned many things of value to me in every clinic visited; both things to do and things not to do, the latter seeming at times to predominate. In trying to sum up in a general way my observations on other men's work, and also keeping a critical eye on my own, I am forced to the conclusion that we are all in the position of some very unhappy truck drivers whom, during the late unpleasantness, it was my misfortune to command. A fleet of Medical Corps trucks, of which I was in charge, was sent across some mountainous country during a wet spell. The roads were high crowned in the middle and as slippery as a ball-room floor. On either side were ditches of no mean depth, and occasionally the entire mountain side was at our disposal if we wished to slide that way. If a truck stopped it was almost certain to ooze into one or the other ditch. As long as the driver kept the truck moving at a moderate speed and exactly in the middle of the road, all went well, but *attention to anything except the job on hand invariably landed truck and driver in the gutter.* And I might inform those of you who, unlike myself, are not expert truck masters, that hard as it was to keep those accursed trucks in the road, it was *harder still to get them back once they were out of it!* Furthermore, the leaders had to be doubly careful, for a mistake on their part usually caused misfortune to descend upon those following close behind.

As I have said, in regard to our work all of us are in exactly the position of those truck drivers. Practically every one of us gets off-center on one phase or another of our work, and, by allowing ourselves to do so, we are apt to harm ourselves, our patients and, in proportion to our leadership, the rest of the profession. Our attention becomes focused on some little specialty, some one organ, type of operation, technic or treatment, and our obsession carries us into the ditch. Our vision narrows. We forget to view the body as a whole, lose sight of the aims of our profession, and lose that greatest asset of all—*good judgment*—thus falling short of the mark which we have hitherto attained. It has been said that anyone can quickly master technic and treatment, but that the priceless something called *good judgment* can be acquired only by great expense of labor, time, and pains.

We acquire some new piece of apparatus—a quartz light, diathermy outfit, violet ray, or vibrator—and in our pride of new ownership treat everything from head to heels with it until our attention is directed to some new find. Then, instead of being sensible and realizing the advantages as well as the limitations of the old, we discard it entirely, and worship before new gods. A detail man from some big drug house passes through town and for the next 2 months the druggist must stock heavily with his product in order to fill the deluge of prescriptions, only to be left with a big supply unused when the next detail man makes his call and he is obliged to stock up with some new concoction. It might be well, in this context, to call your attention to the remark of Sir William Osler, who was wont, jokingly, to tell his students that he knew the names of only 5 medicines—and had forgotten 3 of those.

One of our great surgeons has said that eight-tenths of good surgery is *attention to detail.* Some of our confréres seem to have acquired the idea that he meant that the whole eight-tenths should be lavished on one single detail, and govern themselves accordingly. To illustrate: I know a surgeon who has come to view the skin as the source of all evil, from the standpoint of infection. The preoperative technic for cleansing the skin is, in his clinic, laborious and complicated. If one of his assistants should hand him a knife or retractor for use again after having touched the skin edge, either apoplexy or murder would result. Toweling must immediately and entirely cover the skin edge, even if it must be sewn on at the expense of added time. Yet I saw him allow 2 gross breaks in technic in a supposedly clean operation go

unchallenged, although his attention was called to them. He is certainly not as good a surgeon as he was when he viewed every possible source of infection with suspicion.

We all know excellent men who have allowed their enthusiasm for radium, x-ray, serum therapy or what not to lead them to see results which did not exist, and carried them to the point of making rash claims and unfulfilled promises. Surely we need enthusiasm in our work, and we need enthusiasts to bring sharply to our attention newer methods and treatments; but we must not allow them to do all our thinking for us, nor take for gospel all their statements. We should never throw aside tried and successful methods until we are thoroughly satisfied that the new broom sweeps more cleanly.

I look back with interest upon my own experience with gall-bladders. Working with a surgeon who left them all in, I became fully imbued with that idea, and so, I am sure, during the first years of my work left many in that would have been better out. Later, after visiting a well known clinic, I returned convinced that all should come out, and immediately went to that extreme. I have at last come to what seems to be the logical and sensible attitude of taking everything into consideration in each case, and taking them or leaving them, according to the circumstances which present.

It is needless to call your attention to the way in which specialists in every line are prone to see in all symptoms indications for the exercise of their specialty. Not that they mean in any way to be prejudiced, but here, again, they have slipped temporarily into the ditch. We have the medical man who has no use for medicines, as well as his brother who has no faith in Nature, and all in his dosage; the man who shudders to think that there still exist tonsils in their native lair; the man who would remove every breast and uterus at the menopause; the obstetrician who feels cheated if a child is delivered before he has a chance to put on forceps or do a cesarian; the man to whom the colon is the basis of all human ills.

But why enumerate further? My purpose is not destructive criticism of the best and greatest profession on earth, but only to remind you that constant vigilance is necessary for all of us in order that we may keep in that middle position between the extremes of radicalism and conservatism, with the basic principles of medicine and surgery as our foundation, and the aims of our profession constantly before us.

COMPLICATIONS OF URETHRAL STRICTURE: OCCURRENCE IN 1244 CASES

Meredith F. Campbell, M.D.,
Montclair, N. J.

Attending Urologist, New York Nursery and Child's Hospital; Associate Visiting Surgeon, New York City Cancer Institute; Adjunct Urologic Surgeon, Bellevue Hospital, New York.

Those patients dying of urethral stricture are killed by its complications. Most, if not all, of these complications are the result of infection in one form or another; in certain instances small localized urethral infections are disseminated by unintelligent treatment. On the other hand, it is most fortunate that the majority of these complications are not immediately fatal although over a period of years, often, they lead directly to death. Particularly is this true of infectious nephropathy.

We have recently completed a study of 1244 cases of urethral stricture admitted to the Urologic Service of Bellevue Hospital and are herewith presenting a study of the incidence and various types of complications encountered before, during and after institution of treatment. Appreciation of the anatomy of the genito-urinary tract and the mechanical or dynamic factors operating in stricture disease is essential for the proper understanding and interpretation of clinical observations in these cases.

In this study we are concerned only with those strictures due to inflammation or trauma. The latter group represent but 1.9% of the total number and it is safe to state that at least 95% of all strictures are the result of gonorrheal urethritis. In 60 of our patients

gonorrhea was denied although from many of them gonococci were isolated during hospitalization. It is well known, moreover, that secondary bacterial invasion, particularly by colon bacilli, streptococci, and staphylococci, aggravates and intensifies the local infection. These organisms are most often identified in the exudates of the complicating inflammatory processes.

Fig. 1. Large periurethral abscess of midbulbous urethra involving overlying scrotal structures. Primary site of origin was a urethral stricture at this point. With marked phlegmonous diffusion, such a lesion rapidly becomes so-called urinary extravasation.

Pathologically, stricture is due to scar. There is always more or less inflammation and cellular infiltration associated with this scar. By proper treatment (dilatation) all but the scar can be made to disappear. Without treatment, the scar contracts with varying degrees of rapidity and as the obstruction increases, urinary tract stasis and back pressure develop. Such a condition invites and promotes infection and eventually results not only in a generalized infection of the urinary tract above the scar but in dilatation as well. Of prime importance is the effect of this morbid process upon the kidney and it is, therefore, in terms of renal function and relative renal damage that treatment of stricture is considered and carried out. In this respect, the therapeutic problem is precisely comparable to that of prostatic obstruction, in which condition the upper urinary tract changes and complications are like those of stricture. In the consideration of stricture complications, therefore, we will first regard those of

the urethra and contiguous structures and then pass to those of the upper urinary tract.

Of all the complications arising along the course of the urethra, periurethral abscess is the one most commonly observed. The genesis of this complication is readily understood by study of the urethral and periurethra histologic anatomy. Gonococci thrive on the columnar and cylindrical epithelium which line the urethra from meatus to membranous portion. At these points transition to infection resisting squamous epithelium occurs. In the membranous segment urethral glands are few, but anteriorly great numbers of glands and crypts are interspersed among the columnar cells and herein both adenitis and periadenitis develop and persist. If the urethral infection is usually intense in any one portion of the canal, with marked glandular and periurethral involvement, a resulting stricture may be anticipated.

With formation of scar by the healing process, a certain amount of infection becomes enclosed within the inflammatory scar tissue and in the adjacent urethral glands. The persistence of infection stimulates more scar formation with stricture increase. Local irritation following alcoholism, sexual excitement, or even the passage of urethral instruments, frequently light up the smouldering infection into renewed activity. This is manifested by urethral discharge and the pa-

Fig. 2. Periurethral phlegmon (urinary extravasation) complicating urethral stricture. A later stage of lesion beginning as illustrated by Fig. 1. Gangrene of penile and scrotal coverings complete. Phlegmonous infiltration extending up over lower abdominal wall. The usual appearance of these cases on admission to the hospital.

tient may suffer pain at the site of stricture.

Sometimes the local infection about the stricture breaks its bounds and involves the surrounding tissues. The inflammatory mass may discharge into the urethra, but more often points externally. This picture we recognize clinically as periurethral abscess. Such an abscess may on occasion develop when there is no immediate antecedent history of local irritation but this finding is unusual. Extension of the urethral inflammation along Cowper's ducts, or the lighting up of a dormant focus within the glands of Cowper, may give rise to Cowper's abscess. Periurethral abscess, by extension along the perineal and suprapubic fascial planes becomes clinical periurethral phlegmon, a condition more commonly designated as urinary extravasation. In this series inflammatory nodules (which may be considered the forerunner of periurethral abscess) were noted along the urethra in 170 cases; surgical periurethral abscess in 188, or 15%, of all cases.

Fig. 3. Healing in case somewhat more advanced than Fig. 2. Note widespread suprapubic incisions necessary to check advance of phlegmon. Epithelialization accelerated by skin grafts. By scrotal sclerosis, the testicles have been pulled high in the perineum. Primary surgical condition: urethral stricture.

In a recent study of 135 cases of periurethral phlegmon, we found stricture to be the primary surgical lesion in 114, and 20 of these had been previously operated upon for stricture.

Following the spontaneous rupture (and sometimes after surgical incision) of periurethral abscess a urinary fistula may persist. We found 102 fistulas in the perineum and

14 in the anterior urethra; 8 were urethro-rectal and always presented a difficult surgical problem because the ever-present infection rendered closure unlikely. Multiple fistulas are not uncommonly observed and give rise to the term "watering-pot perineum". Excision and urethroplasty offers the only hope of cure in such cases. Sometimes the fistulous opening is found at a distance from the urethra; we have often found them in the upper inner thigh, and they have been observed in the flank.

Urethral calculi are occasionally found in the urethra behind the stricture. Apparently they have been formed there by accretion, although in 3 of our cases a history of renal colics would suggest that these stones had originated in the kidney. Urethral calculi were found in 11 cases; some were round stones too large to pass the obstruction; others were multiple and faceted together as biliary calculi so frequently are. One of these calculous bodies was composed of 9 such faceted stones completely filling the bulbous urethra and was impacted tightly against the face of the stricture, in a case complicated by extensive urinary extravasation.

Fig. 4. Terminal healing in case of periurethral phlegmon of moderate severity due to stricture. Genital deformity is noteworthy as are the skin grafts which are just beginning to grow.

As a result of chronic obstruction with urinary back pressure, dilatation of the entire urinary tract above the stricture occurs. The deep urethra becomes pouched and in some instances small urethral diverticula may be

found. Dilatation and infection not only of the bladder but more particularly of the urinary tract above the bladder ensues.

Changes in the bladder musculature are manifested by hypertrophy, scarring and later atrophy. Acute inflammatory ulceration is often of grave clinical significance. Acute vesical ulceration was found in 2 of our cases, diverticulum was noted twice, and stone was removed from this organ in 5 patients.

Upper urinary tract damage is the complication of most vital interest in the patient with urethral stricture. The ureters often become dilated 6-10 times their normal caliber, and also infected, sclerotic and atonic. Most concern centers, however, on the nature and degree of renal damage and, as previously noted, it is in terms of renal function that the treatment of urethral stricture is considered. Renal injury occurs in direct ratio to the degree and duration of obstruction, and in not a few cases threatens life itself. In certain patients suffering stricture for many years, the renal function has been found to be practically nil. Autopsy reveals marked renal dilatation and scarring with no grossly discernible cortex. In one such patient recently seen by us, the mild toxemia of a small furuncle on the neck proved too great a burden for the damaged kidneys, and he promptly died of uremia. Complicating renal calculus was observed in but 1 of our cases; 13

Fig. 5. Large gaping perineal urethral fistula secondary to extensive periurethral abscess of deep bulbous urethra. Closure was not obtained until 3 urethroplasties had been performed. Underlying surgical lesion: urethral stricture.

suffered from surgical renal infections demanding operation. Although phenolsulphonephthalein tests were recorded in but 1/3 of the total number of patients, and it is of considerable interest that in ½ of these, the total renal output was less than 30% in 2 hours; 3 excreted no dye in 2 hr. and 4 but a faint trace. (Table 1.)

Of the extra-urinary complications, cardiovascular disease is of greatest importance. Arteriosclerosis and myocarditis are commonly observed. A failing heart (myocarditis) prevents many postoperative recoveries; as occurred in 6 of our patients; 21 presented pulmonary complications—tuberculosis, pneumonia, bronchitis, pleurisy and pulmonary edema. Mental changes are common with advanced urethral lesions and on admission to the hospital, 4 patients were irrational; 3 patients were suffering delirium tremens; and 26 others were comatose in terminal urinary sepsis.

Certain complications may be incident to treatment, for improper treatment causes many serious complications. Forceful or brutal urethral instrumentation often results in urethral chill, urinary sepsis, false passages, and acute inflammatory processes in the prostate, epididymis or about the urethra. Even following treatment intelligently applied by urologic specialists, a number of disturbing and occasionally fatal complications developed. Particularly have these complications arisen following operation. Urosepsis is the most severe and also the most commonly observed. The clinical picture is that of extreme sepsis. Blood chemistry reveals a high nitrogenous retention and blood culture not infrequently indicates a bacteriemia. In most instances it is clinically impossible to determine the major factor, whether renal failure or bacterial invasion is the predominant element causing the fatality.

Pneumonia is probably most often an embolic process although it may result from inhalation anesthesia or hypostasis. Many patients dying of urinary sepsis show at autopsy small pneumonic patches which are presumably terminal consolidations and not the direct cause of death. In 8 of our patients death was directly due to pneumonia; 1 died of pulmonary embolus. In a recent comparative study of anesthetics, however, we found that the evidence of pulmonary complications following general anesthesia was 7 times that observed when spinal anesthesia had been given.

Vigorous urethral hemorrhage may threaten life. Its occurrence was noted 10 times in this series and in 5 of these patients it was necessary to open the bladder to evacuate clots. It should be remembered, moreover, that with emptying of the bladder this bleeding will cease. An indwelling catheter checks bleeding in the anterior urethra, while a firm perineal packing with compression binder will stop most hemorrhages of the deep bulbous urethra.

Inflammatory complications along the seminal tract have in some instances been of sufficient severity to prove fatal. Certain of these postoperative patients hover on the threshold of death and in this weakened condition occurrence of an epididymitis, for example, causes death. Acute epididymitis followed operation on 7 patients. Abscess of the testicle occurred in 5, periurethral abscess in 8, and prostatic abscess developed in 3 instances. As a result of these processes, additional operations were required for several patients. Epididymotomy and epididymectomy were each performed once; the testicle was removed in the 5 cases of suppurative orchitis. Incision and drainage of newly developed periurethral abscess (postoperative) was performed in 8 cases. Fourteen of the 114 cases of urinary extravasation secondary to stricture required extension of the drainage incisions and in 4 of these extension of the phlegmon over the abdominal wall had occurred. Moreover, it should be noted that of those patients requiring reoperation because of extension of the phelgmon, 50% die.

Numerous other surgical complications requiring operation were also observed. A prevesical abscess was drained. The incrusted broken-off head of a Pezzer catheter was removed from the bladder in 1 case. Perineal fistulas were subsequently resected in 12 patients and in another instance a penile plastic operation with skin graft was necessary be-

cause of marked destruction of the organ by extravasation.

One patient, ready for discharge from the hospital, developed urethral chill and fatal metastatic meningitis following passage of a sound. A guarded prognosis is always warranted.

Of the total number, 1244, of these patients, 99 died. In 13 of these, no operation had been performed. Operations had been carried out in 848 cases with an operative mortality of 4.9% exclusive of those cases complicated by extravasation. Inclusive of extravasation cases, the mortality was found to be 10.1%. The mortality of the extravasation cases alone was 54.2%.

TABLE 1
Functional Examinations

Phenolsulphonephthalein test (percent in 2 hours intramuscularly)	
None	3
Trace	4
Under 5%	15
6-15%	88
16-30%	88
31-50%	131
Over 50%	101
Creatinin	
Under 1 mgm. 100 c.c.	6
1-2 mgm.	201
2-3 mgm.	69
3-4 mgm.	12
Over 4 mgm.	9
Non-Protein-Nitrogen	
Under 35 mgm. 100 c.c.	317
36 to 50 mgm.	122
51 to 75 mgm.	36
75 to 150 mgm.	11
Over 150 mgm.	7

A PLEA FOR THE ROUTINE USE OF BLOOD PRESSURE TESTS

Francis Ashley Faught, M.D.,
Philadelphia, Pa.

There is no question that the blood pressure test properly used is a most valuable aid in clinical diagnosis. Unfortunately, its almost universal applicability has not yet been realized by the rank and file of the profession.

After more than 20 years experience with the sphygmomanometer, I still agree with Janeway, who when asked if he were forced to forego the use of all modern diagnostic aids save two, which he would retain, replied without hesitation, "the stethoscope and the sphygmomanometer". The value of sphygomanometry to both the physician and the surgeon will be in proportion as it is routinely employed, since only by constant use and study will its wide applicability be discovered and confidence in its findings developed.

The blood pressure test is a thoroughly reliable method of precision, but it should be remembered that neither high blood pressure nor low blood pressure *per se* constitutes disease; nor do readings within the normal accepted limits necessarily indicate a normally functioning circulatory system. It is usually a mistake to endeavor to alter blood pressure levels, particularly marked elevations in systolic pressure, until a thorough study of the case has been made, because when this is done the fundamental reason for the change will frequently be found elsewhere; the variations beyond normal being simply manifestations of a circulatory reaction to some distant pathologic condition.

Low blood pressure, or hypotension, is entirely compatible with normal health, especially when appearing in persons beyond the age of 40 years. This cannot be said of elevated systolic pressure, nor is there any direct relation between persistent low blood pressures, in certain individuals, and bodily vigor. These facts will serve to emphasize the first point that I wish to make, which is, that blood pressure readings, while always desirable, should be given no greater value than that assigned to any other physical sign. The reading should always be carefully correlated to the data at hand, care being taken to avoid placing undue significance upon the blood pressure reading, and then only when the changes found have been verified by subsequent observations. I would emphasize the fact that first blood pressure observations are notoriously misleading, particularly in neurotic subjects, and in those unfamiliar with the procedure. Failure to appreciate this fact may lead to serious errors in diagnosis and in treatment. It yet remains to be determined whether blood pressure variations are the cause or the result of morbid states. I am inclined to believe that in most instances they

are reflections of some underlying condition, and should be given this valuation.

To obtain the greatest value from blood pressure observations they should be made routinely and recorded. Such records will become valuable not only for reference and future comparison, but will also serve to gradually build up a practical working knowledge of usual blood pressure findings in various diseases, which, being based on actual clinical experience, will not be quickly forgotten. In other words, blood pressure judgment will improve in direct proportion to familiarity with blood pressure findings in a great variety of conditions. There is no single factor affecting blood pressure. Indeed, there are so many factors, each capable of such wide variation, that interpretation of minor variations in blood pressure must be made with great care. It should be remembered that all elevated blood pressures do not necessarily mean heart disease, arteriosclerosis, or contracted kidneys, any more than we can now consider that every abnormality discovered in the circulatory system is assignable to any particular portion of the cardiovascular-renal system. In order to recognize abnormal variations one must keep clearly in mind the normal limits. This is sometimes difficult because of a multiplicity of modifying factors, and, because normal blood pressure is constantly varying.

Experience teaches that it is safe to assume that when an adult's blood pressure remains constantly below 110 mm.Hg systolic, we are dealing with hypotension, whereas, in a young adult with a systolic blood pressure constantly at, or above, 130 mm.Hg we are approaching the abnormal.

A large mass of clinical data, contributed largely by the insurance companies, teaches that our earlier conception of what constitutes normal systolic blood pressure, for different ages, must be revised, and the rule which I formulated in 1909 errs on the side of leniency, since it placed the safe levels in the higher ages too high. The table of Fisher, published in 1914, based on an experience of 19,339 individuals seems to be most reliable, and is herewith given.

Age-Years	mm.Hg
15-20	119.85
21-25	122.76
26-30	123.65
31-35	123.74
36-40	126.96
41-45	128.56
46-50	130.57
51-60	132.13
56-60	134.76

Table 1.—Normal average systolic blood pressures.

My own observations on groups of children between the ages of 7 and 14, in two age groups, is shown in accompanying table.

Age	B.P.	P.P.	
7-11	98/61	37	Boys
7-11	93/58	35	Girls
11-14	107/71	36	Boys
11-14	106/63	43	Girls

Table 2.—Systolic and diastolic blood pressure and pulse pressure in children.

Faber and James examined 1101 children between the ages of 3 and 10, and reported the systolic pressure average to lie between 90 and 100. Studies of normal systolic pressure in the new-born, reported by various observers, gives a systolic of 55 and a diastolic of 40 at birth. This increases daily until at the end of the second week the systolic averages 78, after which it increases directly with the body weight.

It is generally assumed that the average pressure in women runs about 10 mm.Hg below that of men of the same age, with these exceptions: with approach of the menopause the average systolic pressure of women reaches and sometimes passes that of men of the same age, and this variation may persist for as long as 10 years; normal blood pressures in the aged do not usually show the difference which exists between men and women in the earlier years.

Adult blood pressures are reached in both sexes at about the age of 18 years. In early adult life there is another exception to the smooth running curve of advancing years. This is the tendency for the athletic group to have in the early twenties an unusually high average systolic pressure. Thus, Alvarez, in examining nearly 9000 University of California students, found that among athletes approximately 45% had average systolic blood

pressure over 130 mm.Hg, while 22% averaged 140 mm.Hg systolic.

The sphygmomanometer is of definite value in determining life expectancy; at least there is no question that, all other things being equal, an individual past 40 years has a better expectancy of life if he has a relatively low systolic blood pressure than if it be high. Fisher of the Northwestern Mutual Life Insurance Company reports this company's general mortality experience to be about 80% of the American Men Table; whereas, the records of 3389 persons (ages 16 to 60 yr.) accepted for insurance, who had systolic pressures of 100 mm.Hg, or less, gave an actual mortality of only 35%.

There is, undoubtedly, a definite relation between blood pressure and body weight. In an effort to clear up this question, Symonds, in 1923, studied the systolic blood pressure findings of 150,419 men examined for life insurance in which the reading was recorded by age and build. He found that age, weight, and systolic pressure increase together. There was an average difference of 10 mm.Hg between the very light and the very heavy group, and this difference was present even at the age of 60 and over. The insurance companies report that very fat men, irrespective of the systolic blood pressure, are generally poor risks.

Assuming that every physician today is thoroughly acquainted with the method of taking blood pressure, it, nevertheless, seems important at this time to emphasize certain facts which are often overlooked in use of the sphygmomanometer. Thus, from observation, I note that many clinicians do not routinely employ the auscultatory method, although this is not a difficult procedure, and, on account of its greater accuracy, should be the method of choice. There is only one condition in which it is unreliable, i.e., aortic insufficiency. In a few cases of advanced generalized arteriosclerosis there may be an audible sound over the artery even with zero pressure in the arm band, and it is impossible to determine the diastolic reading. In these cases it becomes necessary to emloy the fourth period of Swan as a diastolic pressure point. If this criterion is taken to represent the diastolic pressure, then the diastolic readings will range between 30 and 40 mm.Hg.

Employment of the auscultatory method of reading is to my mind, absolutely essential in order to obtain full value from the apparatus because, so used, this instrument gives additional valuable information. Thus, except for the electrocardiogram, we have the most reliable method of determining faint degrees of arythmia. To illustrate: Normally, during auscultation all sounds should be uniform in tone and regular in interval. In the presence of even a slight arythmia not detectable by palpation, the strength of the individual tones will vary and it is often possible to detect variations in the interval between individual beats, while in marked arythmias the excursion of the mercury column, or the swing of the needle, will be seen to be irregular. This variation in the force of succeeding impulses may be so great that in the lower reading, just above diastolic pressure, some will not be heard at all, while others will come through with a firm thump. The result will be apparently 2 diastolic levels; the same may apply to the systolic reading, under which conditions 2 systolic readings, with a difference of more than 10 mm.Hg, may be recorded.

I believe it is possible with ordinary experience in auscultatory blood pressure technic, to detect fibrillation and heart block without the aid of the electrocardiograph. Myocardial degeneration is usually indicated even in the presence of an elevated systolic pressure, when the pulse pressure is small, and when the above arythmias are present. If these findings are associated with an unusually rapid pulse rate, we are fully justified in assuming the presence of myocardial degeneration. Extremes of myocardial degeneration will be shown by a shortening of the normal period of either the second or third phase, or both. This condition was first brought to our attention a number of years ago by Goodman and Howell, who formulated this law: "In auscultatory blood pressure, heart strength depends upon the force of the individual sound and the duration of the intervals of the second and third phases, so that

diminution and shortening of these phases are evidence of cardiac weakness." According to these observers the 4 phases of auscultatory blood pressure sounds are as follows:

AUSCULTATORY BLOOD PRESSURE READING

First phase:	Duration 10 to 14 mm.Hg
Second phase:	Duration 15 to 20 mm.Hg
Third phase:	Duration 20 to 25 mm.Hg
Fourth phase:	Duration 3 to 6 mm.Hg
	48 to 65 mm.Hg

I feel that I obtain reliable information from the so-called "Heart Work Test", although I prefer the term "Circulatory Efficiency Test". Having applied the various methods of measured exercise suggested by other observers, with indifferent success, I have adopted the following routine, chiefly because I have been unable to find any other method which allows a blood pressure reading sufficiently soon after cessation of exercise to detect its immediate effect on blood pressure.

The patient is placed recumbent upon the examining table. The apparatus is then adjusted to the arm. After 5 minutes' rest the systolic, diastolic pressure and pulse are taken and recorded. The patient is then directed to elevate first one leg and then the other to an angle of 45° from the body without flexing knees. This is continued until an increase in pulse rate of 20 or more beats is noted, when the exercise is stopped, the number of movements recorded, and the systolic and diastolic pressures immediately taken. This should not occupy more than 15 seconds. The systolic, diastolic pressure and pulse are again taken after the lapse of 30 seconds; again at the 2 minute interval; and again after a total lapse of 3 minutes. From these readings the pulse pressures are calculated. In the presence of a normal circulation there will be a systolic rise and increase in pulse pressure recorded immediately after the cessation of exercise. Within 15 seconds the pulse will have begun to diminish and the systolic pressure to fall. At the expiration of 3 minutes normal relations will have been reëstablished, although often the pulse will drop to normal while the systolic pressure and pulse pressure will be found slightly higher than they were after the rest interval. In the presence of circulatory weakness (and this includes vasomotor instability) the systolic elevation will not be as great, the pulse rate will be more rapid, the pulse pressure may not increase, while at the end of the 3 minute interval the pulse may be found to be rapid in spite of a marked systolic drop.

In aortic insufficiency, I would remind you that we commonly find a very low diastolic pressure, so that pulse pressures of 100 mm.Hg or more are usually significant of this disease. In certain instances this diagnosis may be made even in absence of the characteristic murmur, but it should be borne in mind that in some cases of arteriosclerosis, especially in the aged, a similar blood pressure picture may be found. In aortic insufficiency we usually note marked differences between the arm and the leg pressure, systolic pressure being higher in the leg, e.g.; arm 155/30, leg 220/45; or arm 165/50, leg 245/60. Here again it should be borne in mind that certain other conditions, notably exophthalmic goiter, may show similar although less marked differences.

In arteriosclerosis it is not unusual to find inequality between the systolic readings of the two arms. In my experience this occurs in 50% of cases. In 1917, Bowes reported 150 cases in 75% of which the inequality was present. There is also usually present a greater increase in the systolic than in the diastolic pressure. Hence, we expect to find an increased pulse pressure, e.g., left S. 178; D 104; P.P. 74. Right S. 230; D 104, P.P. 126.

In closing, I would again caution against placing too great dependence upon the blood pressure findings alone. Extremely high systolic pressures may be compatible with health, while under certain conditions systolic pressure between 200 and 300 mm.Hg is borne for many years with little or no inconvenience. This applies particularly to pure arteriosclerotics and to aged patients presenting a combination of chronic contracted kidneys and arteriosclerosis. I have followed such cases for years, rarely finding the systolic pressure below 200, and yet being unable to discover any serious handicap or significant symptoms resulting from this increase in pressure.

DIAGNOSIS OF GALL-BLADDER DISEASE BY MEANS OF X-RAYS

J. J. Quiney, M.D.,
Easton, Pa.

Until February, 1924, when Graham and Cole introduced their method of gall-bladder examination, the results of x-ray investigation of that organ were not very satisfactory. The procedure had consisted almost exclusively of searching for gall-stones and only about 45% of these were satisfactorily visualized on the film; a gall-bladder with thickened and calcified walls could occasionally be seen and the diagnosis of gall-bladder disease was perhaps more frequently made by indirect evidence from the barium filled gastro-intestinal tract.

The method of Graham and Cole has revolutionized the diagnosis of gall-bladder disease, and is, to quote from Eusterman, "the most valuable single laboratory diagnostic method of determining gall-bladder disease". Graham, in a survey of the literature, reports: "The percentage of correctness in 446 cases, of all authors, with a diagnosis of pathologic gall-bladder was 97.8%; the correctness in 115 cases, of all authors, with a diagnosis of normal gall-bladder was 74%." Kirklin reports that correct cholecystographic diagnoses have been made in 87.3% of 506 cases operated on. Graham further reports on 147 gall-bladders removed and subjected to microscopic examination: "in 143 of the 147 cases, the x-ray diagnosis was confirmed; 97.28%."

To arrive at a clear understanding of the test, it will assist us greatly if we note that Boyden, conducting experiments in physiology, found that the gall-bladder of an animal becomes collapsed and empty in from 1 to 2½ hr. after a meal containing an abundance of fat. It then fills slowly for a period of 8-10 hr. Full distention occurs about 12 hr. after the meal. If abstinence from food is continued, the fluid of the bile is partially absorbed by the gall-bladder mucosa, and this renders the remaining bile more concentrated. The greatest degree of concentration occurs 4-5 hr. later. Repeated observations on humans confirm in every way this sequence of events (Stewart).

The Graham and Cole method consisted in the administration intravenously of a dye the technical name for which is tetraiodophenophthalein. Menees and Robinson introduced a method of administering this dye by mouth and this has become the more popular. It has been claimed by some that the intravenous method is the most accurate but this assertion is open to question and is flatly denied by many. There are objections to the intravenous method, such as shock resulting from introduction of a foreign proteid, and occasional development of a slough at the site of injection because some of the dye escaped into the tissues adjacent to the vessel. The intra-oral method can be used without fear of serious consequences, though nausea, vomiting and diarrhea do sometimes occur; these symptoms subside within a few hours and are never of a serious character.

I have used the method advocated by W. H. Stewart, of the Lenox Hill Hospital, New York, for the past 2½ yr. with very satisfactory results. It consists of giving the patient a mild cathartic on the evening preceding the preliminary examination. If necessary, an enema is given next morning. Films are then made of the gall-bladder region to determine presence or absence of calculi. If stones containing sufficient calcium are present in the gall-bladder they will be visualized on the film. If, however, stones are present but made up largely of cholesterol —negative stones—they will not cast a shadow. It then becomes necessary to thoroughly empty the gall-bladder by substituting for the usual evening meal one rich in fat, such as soup, creamed chicken or 2 soft boiled eggs, vegetables, bread and butter and a glass of milk. The capsules of "tetraiodo" and sodium bicarbonate are given. The following morning at 9:30, or 12 hr. following administration of the dye, films are made; if the gall-bladder is normal, it will be well visualized because the opaque dye has entered the gall-bladder through the liver and cystic duct. The patient is instructed to refrain from eating and, 4 hr. later, additional films are made. At this, the sixteenth hour, the process

previously described as concentration is at its height, and though the gall-bladder may be somewhat smaller at this time it will be seen at a stage when its density is greatest. The patient is then given a second fatty meal, such as described above, and after a period of 1 hr. additional films will show the gall-bladder shadow to be about 1/3 the size noted at the twelfth and sixteenth hour examinations. The evening meal may then be partaken of and the next morning, at the thirty-sixth hour, the gall-bladder should not be visible on the film; all of the dye-containing-bile having been emptied through the cystic and common ducts into the duodenum.

This sounds like a long and complicated procedure; as a matter of fact it is carried out with very little inconvenience to the patient and usually does not interfere to any great extent with his business; it is necessary for him to remain at the office only long enough to expose the films.

Having made the films, it becomes necessary to check up and see how closely the activity of the gall-bladder in question conforms to its normal physiologic activity. It can be readily seen that this examination is not used to determine the presence or absence of calculi alone but also to determine normal or abnormal function, and abnormal function means an abnormal gall-bladder.

In looking for positive evidence of disease we note: (1) the presence or absence of stone; (2) presence or absence of a gall-bladder shadow; (3) deformity of the gall-bladder shadow; (4) faintness of shadow; (5) persistency of shadow; (6) late appearance of shadow.

Gall-stones, as above stated, are of 2 types —opaque and nonopaque—the opacity depending upon the amount of calcium entering into the stone formation. This opaque type is visible on the film made as a part of the preliminary examination, before the dye is given. The nonopaque stones are made up mostly of cholesterol and appear on the films as dark areas surrounded by the opaque dye-containing-bile which casts a white shadow. If the stones of this variety are small and occur in large numbers, the opaque bile appears between them and a grayish mottled appearance is noted on the film. These nonopaque stones are not visualized unless the dye is given. As a result of partial obstruction of the cystic duct, a very small amount of dye-containing-bile may accumulate within the gall-bladder, in which case the stones receive a faint coating which renders them visible.

Calculi are especially easy to recognize at the eighteenth hour following the fatty meal when all of the dye-containing-bile except a heavy coating adhering to the stones has been expelled from the gall-bladder. At the twelfth hour an opaque stone may be missed entirely, because of the uniform density of the shadow cast by the opaque bile. Should complete obstruction of the cystic duct occur, no shadow of the gall-bladder will be seen and nonopaque stones will not be visualized. Cases in which no shadow of the gall-bladder appears following administration of the dye, present most valuable findings. Obstruction of the cystic duct occurs from lesions within or adjacent to the duct. A stone within the cystic duct, however, is the most frequent cause of these so-called "no-shadow" cases. An edema of the mucosa of the duct is sometimes responsible, according to Lyons. Edema is sometimes responsible for absence of the shadow at one examination and its presence at another; the edema having subsided during the interval.

Deformity of the gall-bladder shadow is most frequently due to adhesions of gall-bladder of omental origin. When these adhesions are the result of cholecystitis the shadow is more apt to be deformed and the edges are likely to be roughened and irregular. In a majority of these cases, stones are also present. Extensive adhesions involving the duodenum, liver or colon, may occur, however, without producing a deformity in the gall-bladder outline.

Faintness of shadow indicates pathology. It is usually associated with other evidence of a more definite character. It indicates impaired function and is of importance in detecting gall-bladder disease in its very early stages. We all know of many affections of obscure abdominal origin which from their beginning are diagnosed as indigestion. If these cases are carefully investigated it will

frequently be found that the symptoms are due to an early gall-bladder involvement, and it is these very cases we should detect. The advanced gall-bladder case is not difficult to diagnose but a great deal of damage to the gall-bladder has taken place at this advanced stage and in order to do our best for patients these conditions should be recognized early.

When the shadow of the gall-bladder does not rapidly diminish in size after feeding, and persists for 36 hr. after administration of the dye, we have usually a reliable indication of an advanced cholecystitis. If the shadow is late in appearing, which is a rare occurrence, such delay is indicative of a diseased gall-bladder.

Such conditions as duodenal ulcer, subacute and chronic appendicitis, and diseases of the right urinary tract, do, at times, cause confusion in diagnosis. An examination of the gastro-intestinal tract by means of a barium meal will assist very materially in diagnosing lesions of the duodenum and appendix, and proper investigation of the urinary tract, with the assistance perhaps of pyelography, will result in a diagnosis of lesions of the kidney, ureter or bladder.

ESSEX COUNTY SOCIETY PRESIDENTIAL ADDRESS

Max Danzis, M.D.,
Newark, N. J.

(Delivered at the Annual Meeting, Oct. 2, 1928)

Permit me to express to you my most sincere and profound appreciation for the great honor that you have bestowed upon me in electing me as President of your society. I consider it to be the most outstanding privilege in my professional career; a distinction which I shall forever cherish and esteem more than any words can express.

I shall take a few moments of your time to review briefly some of the most outstanding activities of this society and to discuss some of the problems that confronted us during the year; some of which are of vital importance to ourselves and also to the public at large. The members of our Council, including the Ex-Presidents who were made honorary members of your governing body, have manifested a most active interest in our deliberations; meetings were well attended, a most harmonious and coöperative spirit prevailed, and whatever was accomplished is due to their sincere devotion to the welfare of our society. Your chairman feels most grateful to them for their active coöperation.

One of the most important problems that agitated the members of our society was *Annual Registration,* a legislative measure intended to eliminate from our ranks the illegitimate practitioner of medicine. It was strongly advocated during the last winter. The advantages to the profession, of such a measure, by registering annually every legitimate practitioner of medicine, thereby giving the State Board of Medical Examiners a definite index of every medical licentiate, was pointed out to us as one of the strongest arguments for its adoption. The fact that this measure seems to function effectively in some states where it has been adopted, and that it is not a novel experiment, was brought to our attention by those who believe it to be a constructive and beneficial form of medical legislation. The many inconveniences to which the honest, ethical, hard-working medical practitioner might be subjected, if such a law were enacted are entirely overlooked. The fact that a doctor practically loses his right to practice—a right which he has acquired only through many years of hard work—the day that he fails to register, is entirely disregarded. Such a measure, like all other legislation which aims to eradicate certain evils by putting the burden on the innocent majority, either in the form of restriction or prohibition, with the hope of restricting or prohibiting a very small minority from unethical or illegal practices, is not entirely just in its concept. It usually fails in its purpose because it does not restrict that small offending minority against whom the legislation was enacted, but merely puts an unnecessary hardship on the majority without in any way materially decreasing the misdeeds of the few. The public and the profession suffer less from the occasional unlicensed practi-

tioner than from the so-called legitimately licensed member of certain cults, or even from those licensed physicians who take advantage of the gullible and innocent public to promise them, through all sorts of advertising, sure cures for all diseases, imaginary or otherwise. The enemy within the ranks is usually more dangerous than the one without. Most of our efforts should be directed to eliminating from our ranks those who in the guise of the licensed practitioner are a menace to the health of the people and a disgrace to our profession. There is sufficient legislation to reach and punish the unlicensed or criminal practitioner without throwing the burden of annual registration on a large group of well meaning, law abiding, sincere and capable doctors. The members of our society have forcefully and repeatedly registered their unalterable opposition to this measure. This has had its effect in arresting any definite action, at least for the present, in deference to our opinion, with the hope that in the future we may remove our opposition and annual registration may become a burden for the medical men to carry.

The Constitution and By-Laws of our society are in need of revision to conform to modern standards. A committee appointed for that purpose is actively engaged in this work, and will in the near future submit for your approval their suggestions for the necessary constitutional amendments or changes.

Our coöperation was solicited in an Antidiphtheria Campaign carried on in the State of New Jersey. A special committee consisting of Dr. Wherry (Chairman) and Dr. Connolly was appointed for that purpose. This committee has done admirable work by preparing an instructive article for the information and guidance of members of the profession.

Periodic health examinations, a more liberal policy of hospital affiliation, and systematized organization of our hospitals for clinical teaching purposes, are, to my mind, the most outstanding medical problems to which our society should give serious thought and consideration.

The question has frequently been asked: "Why not extend medical care to the people in order to prevent them from becoming ill?" An attempt to solve this problem has been made by urging every individual to undergo periodically a thorough physical examination. Many medical organizations have carried on active campaigns for a thorough periodic health examination for every individual, by his personal physician. The question immediately presents itself: "Is the general practitioner, even of the highest type, or for that matter even the best trained internist, prepared with all the modern physical equipment essential for a thorough and complete examination; to conform with the plan outlined in most of the comprehensive blanks provided for that purpose?" A careful perusal of any one of those blanks will convince one that the answer must be a negative one. Even the most enthusiastic advocates of periodic health examination are recognizing some of the serious difficulties associated with this movement. Dr. Franklin Martin, in an article on "Health Inventoriums and the Hospitals", (read at the Thirteenth Annual Convention of the Catholic Hospital Association, June 18, 1928) asks: "How many practitioners could, unaided, make a complete physical examination of a patient even though they had at their disposal all of the laboratory and other diagnostic facilities?" How many distinguished internists, surgeons or other specialists would attempt such an examination without the assistance of a number of expert technicians, and occasionally one or more confréres of other specialties? Where are the necessary laboratory facilities, the technicians and group of specialists found, under one roof? In less than a dozen group clinics! In less than a half-dozen diagnostic clinics; aside from dispensaries for the treatment of the ambulatory poor in medical schools."

He suggests that every standardized hospital, having all the necessary equipment and laboratory facilities, shall furnish a special room or rooms to which any legalized practitioner of medicine in good standing in his respective county medical society may bring his patient for examination. The hospital shall furnish to the practitioner, for a nominal charge when necessary, all the required laboratory tests and consultants as indicated, but

there shall be no charge for the examining room. The attending physician shall render to the patient a bill covering his examination fee. Every applicant for such an examination should be accompanied by his or her own doctor, or by a written request from the attending physician for such an examination. The plan received careful consideration by the Hospital Department of the American College of Surgeons. According to Dr. Martin, "a tentative survey of a number of community hospitals and presentation of this subject to several groups of practitioners as individuals and as members of county and other medical societies, has brought enthusiastic approval". Whether such a plan is practical only in its adaptibility to the needs of smaller communities, or may be given a thorough trial in the larger and more populous centers remains to be seen. The one outstanding merit of such a plan is that it would probably prevent the establishment of *commercial* health inventoriums, several of which are already in existence today. It would give the family physician the opportunity to make a complete personal inventory of his patient's health, with the same degree of thoroughness and scientific accuracy as can be at present accomplished only by a comparatively small number of individual specialists who have at their command all the equipment necessary for that purpose.

During the last few years there has arisen within the profession a steadily increasing demand for a more liberal policy of hospital affiliation. As one might expect from any movement whose object is a revolt against certain existing conditions, we find that this medical problem has produced a small group of extremists and a fairly large group of moderates. The first group advocates extension of hospital privileges to every ethical practitioner, so that he may be permitted to assume personal charge of his patient, irrespective of the latter's status; "pay" or "free" alike. The more moderate group demand that all hospitals, particularly those supported by private contribution, extend the privilege of their private and semiprivate service to those ethical members of the profession who express a desire to avail themselves of that service. Time does not permit, nor is it the intention of the writer to enter into a discussion or a refutation of the claims made by the first group. It suffices to state that every hospital directorate assumes a serious moral responsibility to the so-called "free" or "ward" patient. The directors obligate themselves to provide the best and most expert medical care that can be procured in that particular community. It follows, consequently, that they should have the right to choose that kind of medical personnel which, in their opinion, will render the most efficient and expert service. The demand of the moderates assumes an entirely different aspect. Here, the choice of medical or surgical attendants rests entirely with the patient himself. The hospital assumes only the responsibility of providing him with all the necessary physical comforts, and all the required medical, surgical or laboratory equipment. The question is frequently asked: "By what right then does the hospital deprive this private patient of his or her rights to choose the family physician to assume personal supervision of treatment?" Many hospitals have recognized the merits of this claim and have established the so-called Courtesy Staffs, which are subject to all rules and regulations governing hospital activities. This plan is in no way detrimental to the interest of the patient, and is of great educational value to the general practitioner. It gives the ethical practitioner of medicine an opportunity to be associated with a hospital where he can familiarize himself with progressive methods of medical practice which can be carried out only through the coördinated activities of the clinical and laboratory groups. A more general adaptation of this plan would curtail to an appreciable extent the development of some of the so-called private hospitals, organized primarily for commercial purposes.

In some, if not in most, of these institutions there is a deplorable want of medical organization. Modern scientific working facilities, group coöperation, and medical incentive, are conspicuously lacking and as a result the service rendered must of necessity be of a low grade; and the public as well as the medical profession suffers thereby.

There are at present 25 hospitals within the County of Essex, with a total capacity of 5141 beds. Most of these institutions are conducting very active general ward services. A general program of development has recently been adopted by most of our hospitals. Several new hospitals are in process of construction or in contemplation. Some of our best known and oldest institutions are now engaged in the process of providing larger and more modern accommodations. In a recent survey of the industrial development of 2000 cities and towns in the United States, Newark looms as one of the most sensationally growing industrial centers. Modern hospital conveniences and working facilities are rapidly gaining ground to keep pace with the general industrial development of the city. It is safe to predict that in the near future we will have hospital facilities comparing favorably with those found in any of the large metropolitan cities.

Our county society embraces a large group of very able and devoted men who hold responsible and active positions on the various hospital staffs. Some of these men have gained wide recognition as outstanding men in their respective fields, as well as the respect and admiration of the local profession. They are in a position to assume active leadership in development of hospital facilities and clinical material for local post-graduate teaching purposes. Being a firm believer in these views, your Chairman has appointed a standing committee to study this problem. A tentative plan has been formulated, as you already know. All that is necessary for its consummation is the full hearted coöperation of those members of our society who are in a position to render such service and who are familiar with the needs of the local profession. All we may expect in the beginning is a sympathetic response to the efforts of your committee. We feel confident, however, that if this committee is permitted to continue its present activity with the same degree of enthusiasm as heretofore it will accomplish its purpose, and the development of local clinical instruction may become a fact. This would be of great educational value to the entire medical profession of Essex. It would bring about a better understanding and more amicable relations between the various hospital groups, and it would raise Essex physicians from the ranks of the provincial.

I believe that it is within the province of this society to discuss any subject pertaining to advancement of its interests, collectively or as individuals. I realize that some of these problems fall within the domain of individual hospital organizations, and that there may be many obstacles to overcome. Nevertheless, I feel that the sentiment of an entire group is frequently the strongest factor in shaping certain policies. It all depends upon what attitude our society will assume toward these suggestions. If, upon careful analysis, we find that they can stand the test of practical application it then becomes our duty to exert concerted efforts for their realization. Should you find them otherwise, all I ask is to be forgiven for my presumptious enthusiasm upon a subject with which we are all deeply concerned.

THE TREATMENT OF MENSTRUAL DISTURBANCES INCIDENTAL TO PUBERTY

A. A. Rubin, M.D.,
Passaic, N. J.
Associate in Gynecology, Beth Israel Hospital

In general, normal menstruation is not accompanied by actual pain, though there may be a sense of heaviness and discomfort in the pelvis. Puberty is a critical epoch in the life of every woman; her future health and usefulness depends on her mode of living during this period. It is of considerable importance to the girl that her medical adviser, and her parents, should realize that the menstrual function from its onset should be free from any disturbances of a pathologic nature.

I will not refer to the physiologic changes which take place at puberty except to mention the fact that the girl then takes on the charactertistic outline of a woman; the breasts become fuller, nipples larger, hips more rounded, and, as a result of general body

deposit of fat, the entire figure becomes softer. Most important of all is the appearance of ovulation and menstruation due to the full development of the sexual organs.

Pathologic disturbances may be considered under the following headings: Amenorrhea, in its 2 varieties, primary and secondary; dysmenorrhea; menorrhagia and metrorrhagia; nervous disturbances.

Primary amenorrhea: It is at times difficult to determine whether a case is one of delayed development or primary amenorrhea. Generally speaking, if menstruation does not appear before the age of 17, we are justified in designating the case as one of primary amenorrhea. The absence of visual evidence of menstruation due to atresia of any part of the genital tract is not true amenorrhea, but indicates that the flow is dammed back and is causing hematocolpos, hematometria or hematosalpinx.

Before one reassures the guardian that menstruation will occur, the following particulars must be ascertained: (1) That secondary sexual characteristics have developed. (2) That the girl is not suffering from any of the constitutional diseases like tuberculosis, chlorosis, nephritis or diabetes. (3) That growth is continuing and that there is no sudden fall in the *rate* of growth. (4) That upon examination abdominally, rectally, and if possible vaginally, no abnormality is found.

If these conditions are satisfactory, the mother and daughter can be assured that no treatment is necessary, that nature is asserting herself slowly, and that in time visual proof, as manifested by a periodic flow, will be in evidence. On the other hand, if the girl's health seems good but growth is diminishing in rate or has stopped, the condition is much more serious and an attempt should be made to stimulate development of the generative organs by small doses of thyroid or pituitary extract, alone or in multiglandular combinations. Should a good result be obtained from such therapy, we must bear in mind the fact that nature often will stop growth for a time and then recommence without any medical interference. Physiotherapy is an adjunct that we can use, but the results, in my hands, have been unsatisfactory. I use an anterior and posterior mesh electrode and give diathermy to tolerance for 30 minutes and, at times, follow with the sinusoidal current for 5-10 minutes. Treatments are given every other day for 6-8 weeks, during which time the patient should show improvement or a possible cure.

Secondary Amenorrhea has reference to cessation of the menses after that function has once become established. There seem to be 3 types:

(1) In which amenorrhea, lasting 6 months to a year, sets in after the first few natural periods. This type occurs in children who begin to menstruate early, i.e. at 10-12 yr. of age.

(2) In which amenorrhea, lasting from a few months to a year, occurs in young girls who have menstruated regularly for some years. These patients usually have experienced some change of environment, though the condition may also occur after a shock or an operation; it is probably due to an upset in the endocrine balance, or to emotional disturbances.

Treatment of these 2 types is simply to reassure the patient and prescribe some nerve sedative, if necessary.

(3) This occurs too late to be of developmental origin, is not associated with change of environment, and when pregnancy, tuberculosis or any other specific disease can be excluded; amenorrhea associated with insomnia and other symptoms of neurosis, should give rise to anxiety because this condition may be a forerunner of insanity and is frequently linked with morbid psychology. Administration of pluriglandular preparations containing thyroid and pituitary has been followed by disappearance of the neurosis, reappearance of the menses, and general improvement of the morbid condition. The patient must be under continual observation, as relapses are prone to occur.

Dysmenorrhea, or actual suffering associated with the menstrual flow, differs from so-called "menstrual molimina", where the patient complains of a general lassitude, feeling of fullness in the pelvis, backache and some nervousness and irritability. These symptoms do not inconvenience the subject to

any extent. In the first place, treatment should be prophylactic, and the measures I advise and advocate are: (1) That girls be taught that menstruation is a natural habit, and that no change need be made during their periods so far as baths, exercise or brain work are concerned. (2) That girls be permitted to indulge in the activities of play such as skating, cycling, gymnastics, etc. (3) That girls doing sedentary work should be urged to exercise daily and be provided with opportunity therefor.

When dysmenorrhea is established, the treatment should have a two-fold object: (1) To direct the patient's attention away from herself by providing some interesting occupation; hence active work is preferrable to exercises. (2) To stimulate circulation of the blood to relieve the hyperemic uterus; and the quickest way to do this is by hot sitz baths or bipolar diathermy treatments given 2 or 3 days before the expected flow.

In no case where the generative organs in a young girl are healthy, should the operation of dilatation and curettage, or continuous dilatation by means of a stem pessary, or the various plastic procedures devised by Dudley, Pozzi and Sims, be practiced. Aside from the fact that these operations are based on a fallacious conception of the etiology of dysmenorrhea, the danger of subsequent difficult labor must be kept in mind.

The only drugs that I use are doses of atropin 1/100 gr. and ephedrin sulphate gr. 3/4, either singly or in combination.

Menorrhagia and *metrorrhagia* are rare in young girls. At times, until normal flow is established, there may be excessive bleeding during and between the menses, but through good hygienic living and restriction of outdoor activities the condition soon rights itself. Occasionally, the acute infectious diseases, such as typhoid, pneumonia or influenza, instead of diminishing the flow produce an opposite effect. Chronic intoxications due to infected appendix, tonsils or teeth, may cause the flow to be excessive during or between periods; here the focus of infection should be removed. Severe constipation may be the sole cause of the trouble; regular evacuations, aided by some intestinal lubricant are very helpful.

Nervous disturbances are rarer than we are led to believe. Nervous instability, irritability and melancholia may be present to a profound degree, but these symptoms are usually readily detected. Where the neurosis is caused by suggestion, helfpful talk to the girl's parents, and advocation of active participation in outdoor sports during the periods, will do more than drugs to readjust the patient. Any youngster at puberty, being told that she will suffer several days during each month, will naturally become depressed. The prevention of these nervous manifestations in most all cases is dependent on sensible upbringing.

GRANULOCYTIC APLASIA OF THE BONE MARROW OF UNCERTAIN ORIGIN FOLLOWED BY A LEUKEMOID BLOOD PICTURE

Samuel Barbash, M.D.,
Visiting Physician, Atlantic City Hospital,
and
Robert A. Kilduffe, M.D.,
Director of Laboratories, Atlantic City Hospital,
Atlantic City, N. J.

The recent development of agranulocytic angina as a pathologic entity has focussed attention on a peculiar blood dyscrasia characterized by an extreme neutrophilic leukopenia. Although this condition was held to be part of a syndrome associated with a gangrenous ulceration of the tonsils, it has been reported as being present under other circumstances. Dodd and Wilkinson[1], for example, have reported a case following arsphenamin treatment in congenital syphilis in a female aged 11 years, and collected 23 cases of arsenic poisoning in adults following administration of arsenical compounds.

A similar case in a girl aged 9 years was reported by Wheelihan[2] in which the administration of 0.41 gm. of arsenic trioxide produced severe granulocytic aplasia of the bone marrow, and still another instance of acute

interference with the production of the granular elements of the blood after administration of sulpharsphenamin is recorded by Combes[3].

The present case is reported as an illustration of severe granulocytic bone marrow aplasia of uncertain origin and because of the puzzling picture presented by the patient.

S. D., colored female, aged 40, was admitted to the Medical Service of Dr. Barbash in the Atlantic City Hospital, February 5, 1928. Chief complaint: Headache and pain in the neck.

Past medical history: The family history is of no interest. Has had measles, typhoid fever, and erysipelas. In October, 1927, suffered from severe occipital headaches. Her blood Wassermann was strongly positive and she states that she received weekly intravenous injections presumably of an arsenical preparation over a period of 2 months. After each injection, she states, she had a severe headache and chill. In December she ceased treatment.

The patient's story and that of her physician are at variance concerning the reactions after treatment. According to the patient she had a severe reaction after each injection. Physician's record is as follows: On December 12, 1927, she received 0.6 gm. of sulpharsphenamin intravenously, no reaction following, and this dose was repeated on January 2, 1928, without any reaction. On January 4, she received bismuth salicylate intramuscularly. On January 8, she was seen at home, the temperature being slightly over 99°. January 10, her temperature was normal and further intravenous injections of 0.4 gm. sulpharsphenamin were given without reaction on January 11, followed by 0.6 gm. on January 21. She was seen February 2, at home, the temperature being 101°, after which she passed out of his hands, entering the hospital February 5. The total amount of sulpharsphenamin given was 1.6 gm.

A day or so before admission she developed a sore throat, with fever and headache, and was sent to the hospital by Dr. Carrington.

Physical examination: The patient is an adult colored female lying quietly in bed and evidently sick. Temp. 103.2°; pulse 100. The tonsils and posterior pharynx are covered with whitish patches, several of the tonsillar crypts being filled with white exudate. The nasopharynx, from which there was a profuse purulent discharge, was highly inflamed. The right ear drum was tense and bulging, and ruptured a few days later, discharging pus for several days thereafter. There was a moderate enlargement of the posterior cervical glands.

The laboratory examinations made on admission were as follows:

Wassermann (Kolmer quantitative) 44440; Kahn 3+. Culture from throat: B. diphtheriae absent; pure culture of Staphylococcus aureus. Smear from throat, negative for fusospirillar organisms of Vincent. The urine showed nothing of interest. Hemoglobin 45%, or 6.21 gm.%; R.B.C., 2,500,000; W.B.C., 2000; Polys 0; S.M., 100%. Moderate polychromasia and anisocytosis, macrocytes predominating. Subsequent variations in the blood count, and in which the principal interest in the case centers, are shown in the table below. For a day and a half after admission the temperature ranged from 103.2° to 104.2°, when it began to drop and became normal on the third day. After ranging from 97.1° to 99.4° for 2 days, the inflammatory condition in the throat being improved, on February 10, the patient complained of pain in the chest and abdomen. On examination there were numerous fine râles over the bases of both lungs, more marked on the right, and a dry friction rub was heard posteriorly up to the third interspace and anteriorly to the fifth interspace in the axillary region.

The temperature varied from subnormal to 100.3°, the pulse from 104 to 120, and the respirations from 20 to 40. The blood pressure was 96/62 mm. The leukocyte count at this time was 67,600, with the following differential picture: Polys., 77%; S.M., 5%; myelocytes, 15%; monocytes, 1%; premyelocytes, 2%.

A diagnosis of pneumonia was made and corroborated by an x-ray report (Dr. Westcott), Feb. 22, which follows: "Pneumonia of the middle lobe of the right lung, with a beginning resolution; thickened pleura with probably some fluid at the base. Interlobar effusion between the middle and upper lobes,

right lung, with an incompletely resolved pneumonic area above. Marked widening of the aortic shadow without definite increase in the anteroposterior diameter. Generalized increase of all lung markings, both lungs, probably circulatory."

With exception of the blood counts, the various laboratory examinations made at this time were without interest and will not be detailed.

On March 3, the x-ray examination of the chest by Dr. Westcott was as follows: "Shows some thickened pleura and incomplete resolution of the pneumonic area in the base and middle lobe of the right lung. Diaphragmatic adhesions; a right sided pleuropericardial adhesion anterior; interlobar area has been partly absorbed, leaving a thickened interlobar pleura, with a diffuse parenchymatous reaction above and below it."

At no time during the course of the pneumonia and pleurisy was the patient's temperature in accordance with that generally seen in these conditions. With subsidence of the pneumonic condition the patient gradually improved, made an uneventful convalescence and was discharged on March 18.

The blood findings (leukocytes only being shown) are given in the table below.

In reviewing the case, various factors must be taken into consideration. While the patient gives a history of rather severe reactions following the intravenous administration of antiluetic treatment this history antedates the onset of the present illness too long to be credited with an etiologic importance. It is possible, however, although this cannot be proved in the absence of blood counts, that there was present a leukopenia as a result of bone marrow aplasia following the intravenous injections, and that this was intensified by the toxic absorption consequent upon the angina which began the infection.

The question of agranulocytic angina was considered as a diagnostic possibility because of the coincident angina and granulocytic leukopenia but, in the light of subsequent events, this did not seem tenable; the leukopenia did not persist, the angina cleared up, and in spite of the development of a severe intercurrent disease, (pneumonia) the patient recovered.

The blood cytology in the beginning of the disease was certainly expressive of a profound hematopoietic depression, and that such a depression of the patient's defensive, protective, and resisting powers was present the atypical temperature during the course of the pneumonia and pleurisy furnishes corroboratory evidence. In spite of this, however, with the development of pneumonia in response to the superimposed toxic stimulus the presumably exhausted bone marrow and its congeners reacted by the production of an extreme leukocytosis in which the production of granular elements was marked. This was not to be expected nor can it be readily explained.

The blood picture during the pneumonia was that of the leukemoid reaction to infection which has been discussed by Krumbhaar[4].

		PERCENTAGE COUNTS						
Date	W.B.C.	Poly.	S.M.	L.M.	Eo.	Mono.	Myelo.	Remarks
2/5	2,000	0	100	0	0	0	0	
2/7	4,300	0	90	0	0	10	0	
2/8	9,800	0	48	0	0	52	0	
2/10	27,300	49	24	0	0	5	22	Beginning
2/11	67,600	77	5	0	0	0	18	pneumonia
2/13	90,000	83	2	0	0	0	15	
2/14	96,500	86	4	0	0	0	10	
2/15	105,600	85	4	0	0	0	11	
2/16	73,000	86	8	0	0	0	6	
2/17	48,500	89	8	0	0	0	3	
2/18	44,600	88	6	0	0	0	6	
2/20	37,000	84	3	0	0	0	13	
2/22	27,600	93	6	0	0	0	1	
2/23	19,100	87	6	0	0	0	7	
2/24	20,400	88	5	0	2	0	5	
2/25	15,800	89	5	1	0	0	5	
2/27	22,600	84	12	0	0	4	0	
2/28	16,100	78	9	1	2	10	0	
2/29	14,200	79	14	1	2	1	3	
3/1	17,000	80	17	0	2	1	0	

At its height the slides definitely suggest an acute myeloid leukemia but the subsequent course of events shows this not to be the case. The most interesting as well as the least explicable feature of the case is the marked contrast between the two types of leukocytic response exhibited at various stages of the disease and the unexpected response of a presumably exhausted hematopoietic system to a further profound toxemia.

REFERENCES

1. Dodd, K., and Wilkinson, S. J.: Severe Agranulocytic Aplasia of the Bone Marrow, Jour. A. M. A., 90:9:663., 1928.

2. Wheelihan, R. Y.: Amer. Jour. Dis. Child. 35:1032., 1928.

3. Combes, F. C.: Arch. Derm. and Syph., 15:194., 1927.

4. Krumbhaar, E. B.: Leukemoid Blood Pictures in Various Clinical Conditions, Amer. Jour. Med. Sc. 172:4:519, 1926.

THE QUESTIONABLE TONSIL

S. Selinger, M.D.,
West New York, N. J.

Looper and Schneider, of Baltimore, in an article on "Laryngeal Tuberculosis" in the Jour. A. M. A., October 6, 1928, claimed that many cases might be prevented by the correction of pathologic conditions in the upper respiratory tract, such as deviated septum, sinusitis, adenoids, hypertrophied turbinates and hypertrophied tonsils. "You know that God has given us a pair of tonsils for a purpose, and they should be allowed to remain there", is a line of argument heard occasionally from patients, but if analyzed it is found to be true only in a modified sense. I say to them, "Keep your tonsils if they are healthy but if the tonsillar tissue is diseased and if they give repeated trouble locally or do damage to some remote part of the body, then the laws of physical economy indicate that your body is better off without such tonsils because they are then only to be compared to a choked filter or to a funnel wherein the outlet is small and the inlet is overflowing with pathogenic bacteria". There are also other lines of argument against operation: That the tonsil, if let alone, will disappear; that is possibly true provided the tonsillar tissue is normal, for it should then atrophy at or about 12 years of age. Others say that tonsillectomy will stop the child's growth; that idea was held to be true many years ago and it came about because at that time tonsils were removed but adenoids were allowed to remain, and the blame was put in the wrong place. The tonsil will regrow, is still another source of worry. Years ago a "clipping" operation was done—a *tonsillotomy,* with the result that tonsils did recur, but today we do a *tonsillectomy,* or complete removal in the capsule. You may alter the voice, is still another fear, but as a matter of fact, the voice is almost never affected by tonsil removal. Even in cases of professional singers the voice is not changed unless the muscular tissues surrounding the tonsil are cut into; and of course care must be taken that this is not done. In some few cases, of professional singers, because of scar-tissue formation or loss of symmetry in the throat, or because of obliteration of the anterior or posterior tonsillar pillars, the pitch, tone, or volume of the voice may be impaired but this can be reëducated by practice.

One of the bug-a-boos of tonsil operations is the question of hemorrhage. Considering the thousands of patients operated upon, the percentage of cases that show serious hemorrhage is small. Hemophiliacs must be watched for. Hemorrhage occurs, of course, more frequently in adults than in children because contraction and retraction of the vessels is not so reliable. Hemorrhage may occur when there is an acute inflammatory condition of the tonsils, in anemic conditions, with malignant disease, and especially where there is abnormal distribution of blood vessels. It should not be forgotten that injury to the pillars, which are really the palatoglossus and palatopharyngeal muscles, will also give rise to hemorrhage. Secondary hemorrhage may follow the use of adrenalin, especially in combination with cocain.

The tonsil develops by invagination of the hypoblast, subdivisions of which form compartments know as crypts. Around this, lymphoid tissue is deposited and the attached

external surface is covered by a capsule, while the inner or unattached surface is covered with mucous membrane.

What are the true functions of the tonsil? It is supposed to have an internal secretion, but as yet that has not been conclusively proved. It is also supposed to be a blood-forming organ, but no definite evidence of that has as yet been presented. It is said to secrete mucus to lubricate the bolus of food to be swallowed. Possibly the tonsil acts as a filter, or as a firstline of defense against pathogenic bacteria.

The diseases of the tonsil are: acute and chronic follicular tonsillitis, diphtheria, quinsy, tonsillar and peritonsillar abscess, Vincent's angina, calcareous deposits, benign neoplasms, of which papilloma is the most frequent, and occasional cases of lipoma, fibroma and angioma. According to St. Clair Thompson, sarcomas have been found at autopsy on children as young as 18 months of age. Ballenger tells us that out of every 2000 cases of cancer in various parts of the body, 1 case of carcinoma of the tonsil is included. Then, there are some general body conditions which may be caused by diseased tonsils; rheumatic endocarditis, transient albuminuria, and even serious nephritis; rheumatism and chronic head colds are seen in every day practice; chronic otitis media occurs because of the fact that the mucous membrane of the anterior and posterior pillars is continuous with the mucous membrane of the pharynx and of the eustachian tubes; cervical adenitis because the tonsils drain into the cervical lymphatics.

How is it possible for the tonsil to affect organs in distant parts of the body? That is a frequent question. The tonsils drain into the deep cervical lymphatics, from there into the thoracic glands, the thoracic duct, and finally into the subclavian vessels and other parts of the body.

Why should tonsils be removed? They should be removed if the patient has suffered frequently from quinsy; at the time of removing adenoids because you will thus probably spare the child a second operation under general anesthesia; if they interfere with respiration during the day or night; if the crypts continually refill with débris; if there is history of frequent attacks of tonsillitis; or if the patient suffers from rheumatism or purulent otitis media traceable possibly to the tonsils. All authorities agree that there is no clinical evidence of any harm resulting from removal of tonsils.

How are we to know that tonsils are diseased? A practical method of deciding is to use 2 tongue depressors and compress the tonsil between them. Yellow, cheesy, hard masses creeping out of the crypts show these tonsils to be diseased. If you succeed in getting liquid pus from the superior pole of the tonsil there is a definite indication for removal because 85% of the cases of quinsy occur at the superior pole.

I notice that the tuberculosis clinics, before sending their patients to the country for a rest or vacation, insist on having tonsils and adenoids removed. Not that removal of tonsils is a definite cure for tuberculosis of any kind, but that removal of the tonsils seems to help the patient pick up in general health and thereby enables him to fight better against the tuberculous infection.

There are no special contraindications to the removal of tonsils except as regards hemophiliacs. Possibly coagulation time should be estimated in all cases, but we learn recently that Kleinert, of Boston, has thrown an emphatic question mark into the value of coagulation time before tonsillectomy, (Annals Otol., Rhinol., and Laryngol., Sept., 1928) and Hunt states that in a questionnaire sent to 567 hospitals to gather information on the value of coagulation time prior to tonsillectomy, that of the 300 hospitals sending in replies 68% considered a routine estimation advisable; 187 hospitals do a routine test, 59 do not, 65 do so only when requested, and 91 do not consider it necessary. Baily states that a *careful family history* is clinically more important. Kleinert, of Boston, in her follow-up work, shows that of all cases returned to the operating room after operation on account of hemorrhage, every one had coagulation time of 4-5 minutes; that is, normal coagulation time. The latest theory is that individuals with hemoglobin less than 65%, or individuals with increased blood pres-

sure, may have a tendency toward hemorrhage after tonsillectomy. This new thought is really worth considering and investigating.

The age of the patient is no contraindication, though, of course, discretion should be used. If one has lived to be 60 or 70 years of age with his tonsils and is not really suffering or in danger, why not let him keep them? Season of the year is not a contraindication; if you had appendicitis you would not wait for warm weather to come along, nor would you wait for cooler weather.

The type of operation generally advisable is a complete tonsillectomy in the capsule, in contradistinction to the tonsillotomy done many years ago. Generally speaking, local anesthesia should be used in adults and general anesthesia for children. There is no one instrument by means of which you can remove all tonsils. Some tonsils are small, others are large; some are attached to the anterior pillar, others to the posterior pillar; some others attached to the entire fossa while others may be deeply embedded. There is only one way in which you can satisfactorily remove all tonsils, and that is by dissection.

With the latest device, which is comparable to the radio knife, and yet on the style of a Beck-Schenk instrument, you pass the fenestrum over the tonsil and then turn the current on by means of a foot switch; bringing the wire to a dull red rather than to a white heat. If a white heat is used, the cutting is too rapid and surrounding surfaces do not become seared as they do if the wire is used at a dull red heat and allowed to cut slowly; then the surfaces become seared and no bleeding follows. However, it seems advisable to wait until this instrument becomes perfected because the best operators have had a great deal of difficulty and a great number of complications up to the present time.

Hemorrhage may occur either at the time of operation or later. If the bleeding is from the entire raw surface there is really nothing definite to tie off and it is best to use pressure or astringents, such as tannic, gallic, or a combination of tannic and gallic acids dissolved in glycerin. In some cases it may become necessary to sew the pillars together. If, however, the bleeding comes from an active pumper or squirter then there is nothing to do but tie off, which can be done either by means of the hook or the slip knot, or by simply using a needle, needle-holder and catgut. A quick way of determining just where the bleeding is coming from is this: If the bleeding is arterial in nature, look for it at the mid-portion of the tonsillar fossa, because it is at this point where the tonsillar branch of the facial pierces the superior constrictor muscle. If the bleeding is venous in nature, look for it at the inferior portion of the tonsillar fossa because that is where the venous plexus lies.

In conclusion, I just want to mention that a recent editorial in the A. M. A. Journal tells us that a Government Report estimates that about one-third of all operations performed since 1924 in the United States were for the removal of tonsils and adenoids. If patients were not getting good results this operation certainly would not have become so popular.

IT'S JUST KILLING

Arthur L. Lippmann

Some folks expire on a funeral pyre,
  And some on the field of battle.
Some will depart with valiant heart,
  And some like driven cattle.
And some will hope and others grope
  In mankind's age-old blindness—
But here's how *I* prefer to die:
  Just kill me, please, with kindness!

Some people term a deadly germ
  Just splendid for deceasing,
While those who choose unsponsored booze
  Are constantly increasing.
A bit of lead still at the head
  Of mortuary bliss is,
But may they fit in *my* obit.:
  "She smothered him with kisses!"

In Memoriam

HEMSATH, John, 38 Spruce Street, Newark, died of double pneumonia following acute influenza, February 20, 1929.

Dr. Hemsath, the son of Henry and Elizabeth Hemsath, was born September 6, 1872, in Zehner, Luzerne County, Pa. He first attended Muhlenberg College at Allentown and then entered the University of Pennsylvania. After a two-year course in its scientific department he entered the university's medical school from which he was graduated in 1894.

Dr. Hemsath began his practice in the borough of Luzerne but in September, 1894, he removed to Newark. In April, 1904, he was married to Elizabeth Powell Evans, a daughter of Thomas Evans, principal of the public school in Freeland, Pa.

In his practice here, Dr. Hemsath became connected with a number of Newark hospitals and for more than a decade he was visiting surgeon to the Newark Eye and Ear Infirmary. He was also assistant surgeon at St. Barnabas's and St. James's hospitals.

MERCER, Mrs. Archibald, beloved wife of Dr. Archibald Mercer, 31 Washington Street, Newark, died at their residence, March 14, 1929, after a very brief illness.

STAGE, Samuel J., 54 years old, whose practice in Clinton Hill and Irvington has extended over most of the last 25 years, died March 13, 1929, in Irvington General Hospital after a sudden illness brought on by a heart attack.

He was taken to the hospital after collapsing under the strain of attending his son, Earl, a medical student who had been ill for a time. He had endured several milder heart attacks in recent years that he kept from the knowledge of his friends and family, he disclosed shortly before his death.

Among the organizations of which Dr. Stage was a member are Kane Lodge, F. and A. M.; Newark Academy of Medicine, Essex County Pathological Society, Essex County Medical Society and American Medical Association. He was on the courtesy staff of Irvington General Hospital and St. James's Hospital.

WEEKS, David F., for 22 years Superintendent of the Village for Epileptics, at Skillman, New Jersey, died at his residence in the institution grounds, March 15, 1929.

Dr. Weeks was born in Newark, July 31, 1874, and received his preliminary education there. He was graduated from the University of Pennsylvania and studied medicine in the office of his father, Dr. Henry M. Weeks, whom he succeeded as superintendent of the Epileptic Village.

Prior to accepting the superintendency, Dr. Weeks was resident physician at the McKeesport Hospital, McKeesport, Pa.; Cooper Hospital in Camden and the Orthopedic Hospital in Philadelphia. Dr. Weeks was regarded as an authority on the treatment and cure of epilepsy.

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE:
CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:
HENRY O. REIK, M.D., F.A.C.S., Apartment 22 Grammercy Court, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

REVISION OF CONSTITUTION AND BY-LAWS

In this issue of the Journal, immediately following the editorials, we print the preliminary report of the Special Committee on Revision of Constitution and By-Laws of the Medical Society of New Jersey. This is intended to serve as the advance notice to members, required by the present Constitution and By-Laws, that at the coming annual meeting, to be held in Atlantic City, June 12-15, 1929, these amendments will be submitted for consideration and adoption. The proposed Constitution had its first reading and approval at the meeting in June, 1928, and will now be submitted for final action. The By-Laws have been carefully prepared to correspond with and to develop the function of the new Constitution, but each member, and especially each delegate, should give immediate and careful study to both documents, for now is the time to express opinions as to the propriety and adequacy of the proposed changes in our basic laws. The committee has, apparently, done an excellent piece of work, and both the Constitution and By-Laws seem to deserve your approval as presented.

COUNTY SOCIETY DEVELOPMENT

During the past few months the medical societies of New York, Pennsylvania and New Jersey have devoted a great deal of serious thought to the promotion of organization work and to the relationship of our professional organizations to the public. The New York State Medical Society Journal has published a series of reports from district society meetings and some very interesting editorials upon these topics. In Pennsylvania, the secretaries of county medical societies held their Twenty-Third Annual Convention and spent half a day discussing their problems. The autumnal and midwinter sessions of the Tristate Medical Conference were given over entirely to consideration of county medical society opportunities. On January 26, the secretaries and reporters of the component branches of the Medical Society of New Jersey held their first separate all-day convention, and again consideration was exclusively of development and correlation of county society work. Out of all that we should be able to abstract some item of import to each and every member of a county medical society. Especially do we commend to each of you a careful reading of the proceedings of the above mentioned conferences. The meeting of our own society secretaries and reporters is reported in full in the March Journal. The Atlantic City session of the Tristate was recorded in the January Journal, and the recent New York session, extending discussion of the same subject, is presented in complete form in this issue of the Journal. Taken in sequence, or in combination, at least, these 3 reports cover fairly well the whole question and make very interesting reading. Study these reports carefully, thoughtfully, and con-

sider whether your county society is measuring up to what is expected of it as a unit in organized medicine; consider whether you have been doing your own full duty toward making it an effective, working organization. Perhaps you have some suggestions to offer, looking toward improvement of conditions, local or general; if so, pass them on through the Journal. Then remember that there is work for everybody in the county society, and determine to do at least your own share of that work.

We shall not attempt editorial discussion of all the factors considered but may direct attention to a few that seem sufficiently important, or to have been sufficiently neglected, to deserve some amplification.

UNPROFESSIONAL CONDUCT

One highly important question raised at the last Tristate Conference concerns the right and the duty of county or state organizations to control the conduct of members. With definite, well-recognized standards for admission to membership there would seem to go, necessarily, an implied obligation to maintain a high standard of professional conduct on the part of all members. But, do we really pay any attention to that obligation? One speaker said frankly—"I think we are afraid to expel men except for flagrantly criminal acts". That, we believe, about describes the situation. In following such a *laissez faire* policy, are we performing a "manly" part? Are we "playing square" with the public? Are we dealing honestly with our decent and upright associates? Are we even being honest with ourselves?

The warning against throwing stones, either because of personal blemish or residence in a house with glass windows, should not be interpreted as license for some persons to perform unethical practices. We belong to a noble profession, with a history of which we may well feel proud. Shall we allow a few members—probably an insignificantly small percentage of our total membership—to besmirch that record, just because we are too charitable, too lazy, or too cowardly to protest? The reported misbehavior of a few members may easily give the false impression that many members are guilty of irregular practices; assuming that we are correct in the belief that only a few are actually involved in misdeeds. Perhaps the first point to be decided is whether that is a reasonable assumption. Is it possible that any large percentage of physicians has become imbued with the apparently prevalent business dictum that making money is honorable regardless of the method employed—so long as "you can get away with it"; which seems to mean so long as you can keep out of jail? Certainly the time seems to have arrived when someone should ask, whither our let-alone policy is leading?

Take, for instance, the question of fee-splitting. The President of the New York Academy of Medicine, in his inaugural address a few months ago, said that this evil has grown to alarming proportions and that disaster and disgrace threaten the medical profession if it is longer tolerated. Dr. Hartwell is not an alarmist, not a man given to hasty, careless speech. He is an unusually sober, thoughtful, deliberate speaker, and generally knows of what he is talking. As he is not given to idle gossip, his confréres cannot afford to ignore his remarks. He was addressing the most imposing group of physicians and surgeons of New York City. But he was not dealing with a purely local condition, and his charges and his condemnation deserve consideration by physicians and surgeons all over this country; for one can hear rumors of fee-splitting in nearly every city or town in any state of the union. For at least 15 years such rumors have been stalking the country; and they are growing in number and in ugliness. Is it not high time for somebody to demand an investigation, and either disposal of false reports and suspicions, or punishment of those found guilty? The American College of Surgeons, the American Medical Association, and other national organizations adopt stringent resolutions regarding the evil involved in such procedure, but there it rests. Mark Twain's comment on the weather is apropos: "Every-

body talks about it, but nobody does anything."

Rumors will be quelled only by a "showdown". The evil, if it exists, will be conquered only by exposure of the evil doers. It is within the province of each county medical society to investigate the conduct of its own members, and the right to do so should be construed, in so important a matter, to be a duty. The only alternative we see—and in this affair the alternative may be preferable to the original—is to have the state society conduct such an investigation and trial under its own prerogative of membership control. The Judicial Council of the state society should be able to do this authoritatively and impartially.

Now, fee-splitting was referred to as an example of misconduct. It is by no means the only one of which we hear complaint; possibly it is not even the worst. There are some ugly stories broadcast concerning illegal operations, unnecessary operations, exhorbitant surgical fees—stories that are accepted by the laity as true and which tend to lower that esteem in which the profession was formerly held. Join any group of 2 or more intelligent laymen and turn the conversation to "operations". Then listen. That's all you need do to acquire an "earfull" of information. Much of what you hear will be far from gospel truth. Much of it will be due to misunderstanding of facts and conditions. Yes! But in some of it you will distinguish a bit of unpleasant truth. No less an authority than the President-Elect of the American Medical Association has published some facts and figures regarding outrageous fees charged for surgical work; facts and figures that many of us could duplicate from our personal observation; facts and figures that stamp disgrace upon the medical profession. The money changers should be—they must be—driven from the temple, for the temple itself will become defiled by sheltering them.

The Editor makes bold to ask for a "fact-finding investigation" conducted by the state medical society. Let us have a special commission, if necessary, of carefully selected investigators, to study the situation as it affects this state; covering fee-splitting, exhorbitant surgical fees, ambulance chasing in collusion with shyster lawyers, double-dealing in accident and compensation cases, and any other violations of the ethical code. Without assuming a "holier than thou" attitude, we believe that the medical profession of New Jersey is cleaner in these respects than some states with larger cities and greater business competitive institutions; but, are we clean as we should be? We know of no state than can better afford to submit to such an investigation. We have an opportunity to set a good example. Let us take advantage of that opportunity, even if it be not a duty.

THE KNICKERBOCKER ADJUSTMENT COMPANY

In the proceedings of the Conference of County Society Secretaries and Reporters (March Journal), you will find some discussion of complaints against the above named collection agency. In the Bergen County Society reports published in the October and November Journals are statements of complaints upon which this discussion was largely based. From other counties have come occasional complaints or inquiries about the reliability of the agency. Inasmuch as some of the complainants seemed to think that the state society bore a measure of responsibility for the agency's conduct, because of having rented out exhibit space at the annual meeting and carrying an advertisement in the Journal, the Executive Secretary promptly volunteered to investigate any complaints submitted to him with substantiating evidence.

One week after the Secretaries' Conference, the President, Recording Secretary and Executive Secretary of the state society visited the offices of the agency and saw for themselves that several of the stories regarding lack of facilities for service were not founded upon facts. Later, the Executive Secretary addressed a number of the complainants and offered to accompany any individual or any group of members on a visit to the agency for comparison of records, if the physicians would

bring along their records or authentic copies thereof; it being impossible to act upon less specific data. Nearly 2 months have elapsed and no one has accepted the offer.

Up to date not a single charge against the agency has been substantiated by submission of facts. Having published the criticisms of the agency, and having possibly contributed to that extent toward a damage to its business reputation, we feel that we can do no less than publicly acknowledge that the charges and complaints so registered have not been sustained.

EDUCATION IN OBSTETRICS

Two considerations stand out strikingly with reference to the practice of obstetrics in this country. We have repeatedly faced indictment because the death rate from preventable puerperal causes is said to be disgracefully high in this country, compared to nearly all other countries. While this indictment is undoubtedly unfair in its terms and its implications, as has been strongly impressed by De Lee and others, it certainly contains enough truth to be of tremendous concern to obstetricians, to the profession and to public health interests in general.

On the other hand, in our great maternities in the teaching centers, under the direction of our leaders, the work done is excellent, scientifically and in end-results, and is worthily comparable with that abroad.

It must necessarily follow, therefore, that the discrepency between this high plane of practice and the statistical results upon which the indictment of inferiority rests, is chargeable against the general community practice of obstetrics; that the medical profession at large must, in a large degree, accept the responsibility for that charge and must search for and try to correct the causes which contribute to that inferiority.

A most important cause of our shortcomings is indicated in a painstaking study of the place credited to obstetrics in the curricula of American Medical Colleges, by Dr. Palmer Findley, of Omaha (Am. Jour. Obs. and Gyn., Dec., 1928). He points out that compared to the relative importance of the practice of obstetrics and that of other branches, particularly surgery, in the experience and every day work of the average practitioner, the time allotted to obstetrics in our colleges is entirely disproportionate to that allotted to other branches. A greater allotment of time, both in didactic teaching and in practical clinic experience, would enable our medical graduates to undertake the practice of obstetrics with better initial qualification. The encouragement of young graduates to obtain some post-graduate experience, and the better organization of obstetric service in our general hospitals, with special reference to clinical teaching, would send young men into our communities better qualified to practice obstetrics intelligently.

Yet, in spite of this crying need, the American Medical Association Committee on Medical Education, at a recent meeting in Chicago, has actually *cut down* instead of increasing, the relative time devoted to obstetrics in their recommended scheme of instruction.

We of the profession in New Jersey, can aid all these movements. While it is true we have no medical colleges in our state, our hospitals are receiving interns and residents from many of the colleges throughout the country and especially from the two great teaching centers contiguous to our borders, New York and Philadelphia. Our attention to the shortcomings of the undergraduate, our critical analysis of their causes and repeated dispassionate expression thereof, and instructions through our State Medical Society to its delegates to the American Medical Association, may well repercuss on the medical authorities to the end of correcting deficiencies in the curricula. Our constant interest in enhancing the teaching value of the practice of obstetrics in the hospitals in our state, will have a salutory influence in correcting some of the basic causes for the inadequacy of obstetric practice. Mothers needlessly sacrificed and babies robbed of their chance of life, appeal to our collective conscience and lay upon us as individuals the duty of contributing to this effort our constant interest and endeavor.

Samuel A. Cosgrove.

Constitution and By-Laws

REPORT OF SPECIAL COMMITTEE ON REVISION OF CONSTITUTION AND BY-LAWS

(Submitted as advance notice to members in accordance with the existing Constitution and By-Laws)

To members of the Society:

The Constitution herewith presented is in all essentials identical with that proposed and adopted on first reading at the last annual meeting. Its construction has been revised only to make the various articles more clear and concise.

The two most noteworthy changes in the proposed revision are contained in Article IV Section 3 (a) and in Article VI—the former dealing with the proportion of delegates allowed component societies, and their election, and the latter with the election of trustees. Both represent distinct departures from the present order. This revision provides for only one class of delegates to be elected for a term of three years. Likewise all trustees shall be elected, each judicial district having equal representation. It is suggested that Chapter V Section 2, paragraphs (b) and (d), of the proposed revision of the by-laws, be read in connection with Article VI, dealing with the election of trustees.

The By-Laws have in large measure been re-written, and considerable new material incorporated. Some of the more important changes and additions to which your attention is invited are the following:

Chapter V, dealing with the selection of officers and prescribing a procedure (heretofore lacking) to be followed by the Nominating Committee.

Chapter VI, Section 5 (e), is worthy of notice. It provides that the trustees shall propose the names of members to be appointed to the State Board of Medical Examiners by the Governor of the State.

Chapter VII—Judicial Council—should be read in its entirety. In effect, it sets up within the society a grievance committee, somewhat analagous to that contained in the Medical Practice Act of New York.

Chapter VIII.—We believe there is no more important chapter in the revision. Committees are definitely classified; a few of the present standing committees have been discontinued and such of their duties as it was felt should be retained have been added to other committees. Some of the committees remain elective, and for those which are appointive the President also names the chairmen. Reference committees are created, and may be utilized by the House of Delegates to expedite business when deemed advisable.

Our committee has this year dealt solely with revision of the by-laws. To properly equip ourselves for the task we endeavored to secure information, aid and counsel from as many sources as we thought would be productive of help. The secretary of each component society was requested to apprise the committee of any changes or additions that his society wished to have considered. Every officer and Fellow was similarly approached. A careful study was made of the model constitution and by-laws of the state societies drafted by the A. M. A., and the by-laws of a dozen of the largest and most progressive state societies.

The instruments presented represent no one individual's effort but are the composite work of the committee. We believe the proposed constitution and by-laws compares favorably with any with which we are familiar. It is based on democratic principles, with only such limitations as will provide sufficient checks and balances to insure orderly procedure and avoidance of precipitate action. It is neither reactionary nor radical—if anything it is more conservative than the majority of the constitutions and by-laws of state societies which we have examined. We believe it to be comprehensive and elastic enough to take care of the present and future needs of the society.

We have realized the importance of the work assigned to us and have earnestly endeavored to accord it the thoughtful treatment and judgment it deserves.

Respectfully submitted,

Frederic J. Quigley, chairman
W. Blair Stewart
F. G. Scammell
Andrew F. McBride
George H. Lathrope
C. M. Trippe
J. B. Morrison

PROPOSED REVISION OF CONSTITUTION

Article I—Name

The name of this organization is "The Medical Society of New Jersey".

Article II—Purpose

The purposes of this society are: To federate and organize the medical profession of the State of New Jersey; to unite with similar organizations of other states to compose

the American Medical Association; to advance medical science, elevate professional standards, safe-guard the material interests of and promote friendly relations among members of the medical profession; to educate the public in prevention of disease and preservation of health; and, in general, to render this profession most capable of serving humanity.

Article III—Component Societies

County medical societies that hold charters from this society shall be known, and referred to in the Constitution and By-Laws, as component societies.

Article IV—Composition of the Society

Section 1. This society shall be composed of Fellows, Officers and Delegates.

Section 2. (a) The Fellows are the Ex-Presidents of the society.

(b) The Officers shall be a President, three Vice-Presidents, a Secretary, a Treasurer, members of the Board of Trustees, and the Councillors.

(c) Delegates shall be chosen by and from the component societies, and shall be members of this society and of the House of Delegates for the period of time for which they are elected, subject to continuance of good standing in their respective component society, and further subject to their respective component society continuing in good standing in this society.

Section 3. (a) Each component society shall be entitled to one (1) delegate for each fifteen (15) members or major fraction thereof, to be elected at its annual meeting by a majority ballot of the members present; but, each component society shall be entitled to at least three (3) delegates. Each component society shall, at its annual meeting next following adoption of this Constitution, elect delegates in 3 groups—for periods of 1, 2, and 3 years, respectively—and thereafter shall elect its delegates for periods of 3 years each.

(b) In the event of subdivision of any of the existing counties of New Jersey and the creation of an additional component society, the delegates from the old and the new component societies shall be apportioned on the basis above provided, and the quota of the original component society of that district shall be correspondingly diminished.

(c) Each delegate must present a certificate of election signed by the President and the Secretary of his component society, in form as follows:

..... (city), N. J., ... (month) 19... (yr.)

This is to certify that ..... (full name) M. D., was elected a Delegate to the Medical Society of New Jersey, on the..... (date) day of ..... (month) 19... (year), by and from the component society of..... (county), in accordance with the requirements of the Charter, Constitution and By-Laws of the Medical Society of New Jersey.

(d) In the event that a component society becomes a delinquent to this society, its entire delegation shall lose its status throughout the period of such delinquency.

(e) A vacancy shall exist in the delegation of any component society whenever one of its delegates ceases to be in good standing, or resigns, or dies. When such a vacancy occurs in any component society, its secretary shall promptly so notify the secretary of this society, in writing; and, after acknowledgment of receipt of such notice, the component society shall, at a regular or special meeting, fill the unexpired term of such vacancy by election of a new delegate, by a majority ballot of the members present.

(f) Each component society shall elect, at its annual meeting, an alternate delegate for each regular delegate, and the latter, if unable to attend the annual meeting (or any regularly called meeting) of this society, shall assign his delegate's card to his alternate. An alternate, when serving, shall have all the rights and privileges of a regular delegate and, when registered and seated in the House of Delegates, shall retain his seat during that entire meeting.

Section 4. All members of component societies in good standing, but not included in the membership of the House of Delegates, are hereby constituted Associate Members of this society, and entitled to participate in all the privileges of general and scientific sessions.

Section 5. Honorary Members shall be physicians and surgeons who have attained distinction within the medical profession and who may be elected by a two-thirds vote of the House of Delegates after having been recommended by the Committee on Honorary Membership; provided the number of living Honorary Members does not exceed fifteen (15). They shall have all the privileges of Associate Members.

Section 6. Any physician, resident or non-resident of New Jersey, may, upon invitation of this society or its House of Delegates, become a Guest during the annual meeting, and shall thereby be accorded the full privileges of the scientific sessions.

Article V—House of Delegates

The House of Delegates shall be the legislative body and shall consist of the Fellows, Officers and Delegates.

Article VI—Board of Trustees

The Board of Trustees shall be the executive body and shall be composed of the President, three (3) Vice-Presidents, Secretary and Treasurer (by virtue of their offices), and eleven (11) members to be chosen from the House of Delegates—at least two (2) from each judicial district—who shall be elected as follows:

At the first election of officers following the adoption of this Constitution, three (3) members shall be elected for a period of one (1) year; four (4) members for a period of two (2) years; four (4) members for a period of three (3) years; and, as the terms of these elected Trustees expire, new elections shall be for periods of three (3) years each.

Article VII—Councillors

The House of Delegates shall organize five (5) councillor districts within the state. This society shall elect one (1) councillor from among the delegates of each such district, and these elected councillors, collectively, shall constitute the Judicial Council.

Article VIII—Meetings

Section 1. This society shall hold an annual meeting, during which there shall be at least one general session that shall be open to all registered members.

Section 2. The House of Delegates may provide for division of the scientific work of the society into appropriate sections whenever necessity therefor arises.

Section 3. The time and place for said annual meeting shall be fixed by the House of Delegates for each succeeding year. The Board of Trustees may change the time and place when necessary.

Article IX—Officers

Section 1. The Officers, except the Councillors and members of the Board of Trustees, shall hold office for 1 year, or until their successors are elected and installed.

Section 2. The Officers shall be elected by this society, by ballot on the second day of the annual meeting. No member shall be eligible to more than one office at the same time, except the President, 3 Vice-Presidents, Secretary and Treasurer, who by virtue of such offices are at the same time members of the Board of Trustees. A vacancy in office occurring between annual meetings may be filled *ad interim* by the Board of Trustees.

Article X—Funds and Expenses

Section 1. Current expenses of this society shall be met by an annual *per capita* assessment upon the members of each component society; by donation; by sale of the society publications; and from miscellaneous revenue. During the annual meeting, funds may be appropriated by the House of Delegates for the expenses of the annual meeting, for publications, for expenses of officers and committees, but for no other purpose unless authorized by a two-thirds vote of the members of the House of Delegates then present, and approved by the Board of Trustees.

Section 2. The Board of Trustees may incur any necessary expense *ad interim.*

Article XI—Seal

The seal heretofore adopted and now in use shall continue, unless otherwise ordered, to be the Seal of the Medical Society of New Jersey.

Article XII—Amendments

This Constitution may be amended by a two-thirds vote of the members present at any annual meeting, provided the proposed amendments have been considered by the Committee on Revision of Constitution and By-Laws, and that they shall have been submitted in writing at a previous annual meeting, shall have been published in the Journal of this society, and officially sent to each component society at least three (3) months before the annual meeting at which final action is to be taken.

PROPOSED REVISIONS OF THE BY-LAWS

Chapter I

Membership

Section 1. The Fellows and Officers of and the elected Delegates to the Medical Society of New Jersey are members by virtue of its act of incorporation; Associate and Honorary Members hold membership by privilege of the Constitution and are entitled to the rights given them thereby.

Section 2. (a) February first in each year is the final date for closing the official list of members. Five days before this date the treasurer of each component society shall forward to the secretary and to the treasurer of this society a complete list of all paid-up members, with their correct addresses. After

this date no name shall be accepted for the official list.

(b) On the first day of February in each year, the secretary of each component society shall send to the secretary of this society the following information: names of the officers, reporter and censors, member of the nominating committee, delegates and alternates to this society, members elected, deceased, and those who have resigned or moved from the county during the preceding year. Where members have transferred or have been received on transfer the name of the county or state society to or from which they have transferred must be given.

(c) Upon request of the Secretary, the secretary of each component society shall furnish complete lists of the names of all affiliated and non-affiliated physicians resident in the county.

(d) The Official List as published each year shall be *prima facie* evidence of the right of members to register at the annual meeting, and, unless otherwise ordered by the House of Delegates, shall form the basis of representation of each component society.

Section 3. No person who is under sentence of suspension or expulsion from any component society, or whose name has been dropped from its roster shall be entitled to any of the rights or privileges of this society, nor shall he be permitted to take part in any of its proceedings, until relieved of such disability.

Section 4. All members and delegates in attendance at the annual meeting of this society shall write their names and addresses in the registration book; failing to do so, they shall be considered as absent.

Section 5. (a) All delegates shall present to the Committee on Credentials a certificate, bearing the seal of this society and the signature of its secretary. No delegate will be permitted to register or sit as a member of the House of Delegates without such certificate, nor if the component society of which he is a delegate has not paid its annual assessment.

(b) The annual assessment of a component society shall be the dues of at least the smallest number to whom a charter may be granted to form a component society, in accordance with Chapter X, Section 2, of these By-Laws.

Section 6. When a member's right to membership has been verified by the Committee on Credentials, he shall receive a certificate or badge which will be evidence of his right to the privileges of membership. No member or delegate shall be permitted to take part in the proceedings of this society until the provisions of this chapter have been fulfilled.

Chapter II

Annual and Special Meetings

Section 1. This society shall hold an annual meeting at such time and place as may be fixed by the House of Delegates or by the Board of Trustees.

Section 2. Special meetings of this society or of the House of Delegates shall be called by the President upon the petition of twenty or more members representing four or more component societies, or upon request of the Board of Trustees.

Chapter III

General and Section Meetings

Section 1. All registered members may attend and participate in the proceedings and discussions of the general and section meetings. The general meetings shall be for presentation of the President's Address, orations by invited guests, and scientific papers and discussions as provided for in the official program; these meetings shall be presided over by the President or one of the Vice-Presidents. Special section meetings shall be for presentation of scientific papers and discussions related to the medical or surgical specialty designated and as provided for in the program; these section meetings shall be under the guidance of a presiding officer chosen by each section at its last session of the preceding annual meeting.

Section 2. The general and section meetings may create committees for scientific investigations of special interest or importance to the profession or public, and may receive and dispose of such committee reports; but no expense shall be incurred in connection therewith until authorized by the House of Delegates and approved by the Board of Trustees.

Section 3. The order of exercises, papers and discussions, as set forth in the official program, shall be followed from day to day until completed; unless otherwise ordered by the society.

Section 4. No address or paper, with the exception of those delivered by the President and invited orators, shall occupy more than twenty minutes in its delivery or reading, and no member shall speak longer than five minutes, nor more than once, on any subject unless by permission of the society.

Section 5. All papers and reports presented to the society shall become its property, and when read shall be deposited with the Secretary. Permission to publish such papers

in the Journal of the society or in other medical journals may be granted by the Committee on Publication.

Chapter IV

House of Delegates

Section 1. The House of Delegates shall meet on the first day of the annual meeting of the society, but may meet in advance or after adjournment of the annual meeting. Sessions may be adjourned from time to time, as may be necessary, but shall be so arranged as not to conflict with general meetings of the society.

Section 2. Twenty members, representing at least four component societies in good standing, shall constitute a quorum. Sessions of the House of Delegates shall be open to all members of the society, but only members of the House of Delegates shall have the right of voice or vote.

Section 3. It may issue charters to county societies applying for affiliation with this society.

Section 4. It shall consider the reports of component societies, and have authority to make such recommendations and adopt such measures as may be deemed effective for building up and increasing the interest of these societies.

Section 5. It shall hear and finally determine all appeals taken from decisions of the Judicial Council.

Section 6. The House of Delegates or Board of Trustees must approve all memorials and resolutions issued in the name of the society before they can become effective.

Section 7. Unanimous consent shall be required for the introduction of new business at the last session of the House of Delegates during the annual meeting, except when presented by the Board of Trustees or the Committee on Finance. All new business so presented shall require a three-fourths affirmative vote for adoption.

Chapter V

Selection of Officers

Section 1. Each component society shall elect at its annual meeting one of its elected delegates to serve as a member of the Nominating Committee of this society, and one of its elected delegates alternate thereto; this elected member, or his alternate, shall present his credentials to the Secretary at the close of the first session of the annual meeting. The Junior Past-President of this society shall be the member of the Nominating Committee representing the Fellows; if he shall not be able to serve, then at the close of the first session of the annual meeting the Fellows shall elect one of their number to be a member of the Nominating Committee, who shall forthwith present his credentials to the Secretary. The delegates, or their alternates so elected from their respective component societies, and the representative so elected by the Fellows, shall compose the Nominating Committee. This committee shall meet at the close of the afternoon session on the first day of the annual meeting and report the result of its deliberations to the House of Delegates in the form of a ticket containing nominations for each of the offices to be filled, including Trustees, Standing Committees, Councillors, Delegates to the American Medical Association and to other medical organizations.

Section 2. (a) The Chairman of the Nominating Committee shall be the Junior Past-President of the society or the member elected by the Fellows. The committee shall elect one of its own members to serve as secretary and to call the roll of accredited members of the committee as certified by the Secretary of the society. Nominations for all offices, standing committees, delegates to the American Medical Association and other medical organizations, shall be made by individual alphabetic roll call of the counties, the representative from the Fellows being called last. The representative of each county, when its name is called, may place in nomination a candidate, second a nomination or waive its privilege to another county. The representative of the county so favored may then nominate a candidate or second a nomination, after which the roll call will be continued from the point where it was interrupted. The representative of the Fellows may nominate a candidate or second a nomination, and shall have a vote equal to the vote of a representative of a component society. The secretary shall announce the result on completion of each call, and if the tabulation of any roll call be challenged the roll will again be called. A majority vote of the members present shall nominate, and in the event that no candidate has received a majority of the votes cast, the name of the candidate receiving the least number of votes shall be dropped and the call of the roll shall be repeated until a nomination is made.

(b) The Nominating Committee at the first election following the adoption of these By-Laws shall submit to the society the names of two Fellows, selected by the Fellows, as nominees for the Board of Trustees. As the terms of Fellows so nom-

inated and elected Trustees expire, the Fellows shall propose their successors to the Nominating Committee and the committee shall submit to the society the names of the Fellows so proposed, as nominees for Trustees.

(c) The Secretary of the society shall furnish to the committee such information as is necessary for the proper conduct of its business, including a list of all officers, committees and delegates to be nominated.

(d) Nothing in this section is to be construed as preventing the nomination and election of additional Fellows to the Board of Trustees.

(e) The election of Trustees shall conform to the provisions of Article VI of the Constitution.

(f) The chairman shall read to the committee this section of the By-Laws before proceeding to any other business.

Section 3. The report of the Nominating Committee, and the election of officers, standing committees, delegates to the American Medical Association and other medical organizations, shall be the first order of business of the society in the afternoon of the second day of the annual meeting.

Section 4. Nothing in this chapter shall be construed to prevent additional nominations being made from the floor by members of the society.

Section 5. All elections shall be by ballot and a majority of the votes cast shall be necessary to elect.

Section 6. Officers and members of elected standing committees shall assume office immediately after adjournment of the annual meeting at which they were elected.

Chapter VI

Duties of Officers

Section 1. The President shall preside at all meetings of this society and of the House of Delegates. He shall appoint all committees not otherwise provided for, and shall be ex-officio member of all standing committees except the Nominating Committee. He shall deliver an address at the annual meeting of this society, and shall perform such other duties as custom and parliamentary usage may require.

Section 2. The Vice-Presidents shall assist the President in the discharge of his duties, and in his absence or disability the ranking Vice-President shall preside at all meetings of the society and of the House of Delegates, and perform all the duties pertaining to the office. In case of vacancy in the office of President by death, resignation, or removal, the ranking Vice-President shall perform all duties pertaining to that office until the vacancy is filled by appointment of the Board of Trustees.

Section 3. The Secretary shall attend the meetings of this society and of the House of Delegates and shall keep records of their respective meetings. He may engage stenographers to record the transactions of the annual meeting and of its various sections.

He shall issue notices of all regular and special meetings of the society and the House of Delegates; and shall conduct the official correspondence, notifying officers, members of committees, delegates to the American Medical Association and to other medical societies, of their election or appointment and their duties.

Under direction of the Committee on Publication he shall issue annually, as soon after the first of March as possible, the Official List and Directory of the members of this society, and, by counties, of the component societies.

He shall keep a record of all elected delegates, reporting to this society and to each component society the number of delegates to which it is entitled; noting the increased or decreased strength of their delegation on the basis of representation according to the Official List.

He shall submit an annual report to the House of Delegates, and such reports to the Board of Trustees, the Judicial Council and the several committee chairmen as may be required; he shall hold himself in readiness to advise and aid the officers, committees and component societies in promoting the purposes and policies of the society; and shall perform such other duties as may be properly assigned him by the House of Delegates.

The Secretary shall be a salaried officer and may employ assistance when authorized by the House of Delegates or the Board of Trustees.

Section 4. The Treasurer shall give bond, at the expense of the society, in such amount as may be required by the Board of Trustees. He shall demand, receive and preserve all funds due the society, together with bequests and donations; and keep a correct list of the same, with the name of each donor. He shall not pay any money out of the treasury except on resolution of the Board of Trustees, or upon voucher of the officer or committee responsible for the expenditure as provided in the annual budget. His accounts shall be audited by the Trustees at such times as the Board or the House of Delegates may order

and he shall render at each annual meeting of the society a full statement of all transactions of his office. Whenever 90% of the annual budget appropriated for any office or committee has been expended, he shall so notify the proper officer or committee chairman. He shall charge upon his books the assessment against each component society at the end of the fiscal year, collect and make proper credits for the same, and perform such other duties as may be assigned to him.

Board of Trustees

Section 5. (a) At the first meeting of the Board of Trustees following each annual meeting of the House of Delegates, the Board shall organize by electing a chairman and a secretary, and the chairman shall appoint such committees as may seem necessary or desirable. Meetings shall be called by the chairman, but any four members may require the chairman to call a meeting for such time and place as shall be designated by them in writing. Members shall have at least five days advance notice of all meetings. Nine members shall constitute a quorum.

(b) The Board shall exercise general supervision over the affairs of the society, with authority to act for the society between annual meetings, and to perform the following functions: to make recommendations to the House of Delegates; to advise in the deliberations of the several standing committees; to supervise the work of the Publication Committee and, when necessary, to appoint an editor and such other assistants as the needs of the society may require; to determine all salaries; to pass upon all recommendations for incurring expense, over and above that provided in the budget; to order all necessary expenditures; to refer and otherwise dispose of all business properly arranged for its disposition; to require and hold the official bond of the Treasurer and to annually audit his accounts; to fill vacancies in all offices and elected standing committees until the next annual meeting. In the event of a vacancy in the office of Treasurer, by death or otherwise, the Board of Trustees shall select one of its members to fill the vacancy.

(c) It shall have authority to lease, sell, or otherwise convey or dispose of any or all property of the society, both personal and real, and to execute therefor, good and sufficient lease, deed or other conveyance.

(d) Three of its members shall serve on the Committee on Finance in accordance with Chapter VIII, Section 5, of these By-Laws.

(e) Acting for the society, and in accordance with the statutes of this state, as vacancies occur in the State Board of Medical Examiners, by reason of the expiration of term or otherwise of members of said Board representing this society, the Trustees shall nominate for each appointment three members of this society, and the names of such nominees shall then be transmitted by the President of this society to the Governor of the state.

(f) It shall publish annually in the Journal of this society a report of its proceedings and recommendations, and shall render to the House of Delegates a summary of its activities.

Chapter VII

Judicial Council

Section 1. The Councillors shall be elected as follows: At the first election of officers following the adoption of these By-Laws, two (2) members shall be elected for a period of three (3) years; two (2) members for a period of two (2) years and one (1) for a period of one (1) year; and as the terms of these elected Councillors expire, new elections shall be for periods of three (3) years.

Section 2. The Councillors collectively, shall constitute a Board of Censors of this society known as the Judicial Council.

Section 3. The Judicial Council shall meet the evening before the annual meeting of the society and subsequently at the call of the chairman or upon the petition of three of the Councillors, at such time and place as necessity or convenience require.

Section 4. All questions of an ethical nature shall be referred to the Judicial Council without discussion. It shall consider and decide all questions of discipline affecting the conduct of members. It shall consider all questions involving the rights of members, whether in relation to each other, to component societies, or to this society.

Section 5. (a) Any aggrieved member of a component society, or any applicant who may have been excluded from membership in such society, may appeal from its action to the Judicial Council.

(b) The notice of appeal shall set forth in writing the name of the appellant, the name of such component society, the date and substance of the questioned decision, and shall indicate the grounds upon which such appeal is taken.

(c) Upon filing a notice of appeal, the appellant and the component society must submit to the Secretary of this society all records, minutes, letters, papers and written evidence, including a digest of all

testimony whether or not stenographically reported, relative to the matter. All data so submitted shall be confidential and privileged, and made available only to the Judicial Council and its respective members. In case of an appeal being taken from the decision of the Council to the House of Delegates, all such data must then be submitted to the House of Delegates or to a committee appointed by that body to consider the appeal.

(d) The Judicial Council shall consider any appeal on the data so submitted, and may affirm by a majority vote, modify or reverse by a two-thirds vote, of its members present and voting, the appealed decision. If, in its opinion, further evidence is desirable, the Judicial Council may summon witnesses, take such evidence in any manner it may deem proper, and render its decision by a two-thirds vote of the members present and voting; and all its decisions shall be binding unless or until reversed or modified by the House of Delegates.

Section 6. Each Councillor shall visit each component society in his district at least once a year, for the purpose of inquiring into the condition of the profession and effecting close coöperation with this society. He shall make an annual report to the House of Delegates on the results of his observations in each component society. The necessary traveling expenses incurred by Councillors in the line of the duties here imposed may be approved and allowed by the House of Delegates upon presentation of proper itemized statements.

Chapter VIII

Committees

Section 1. There shall be Standing Committees, Reference Committees, and Special Committees.

Section 2. The Standing Committees shall be:

Nominating Committee
Committee on Finance
Scientific Work
Program and Arrangements
Publication
Honorary Members
Welfare
Hospitals and Postgraduate Study.

Section 3. Standing Committees, unless otherwise provided, shall be appointed by the President and he shall designate the chairmen. The President shall be a member ex-officio of all the above named committees except the Nominating Committee. Unless otherwise ordered in these By-Laws, committee members shall serve for three years; provided that in committees of three members no two terms shall expire the same year; and in committees of six members not more than two terms shall expire the same year.

Nominating Committee Elected

Section 4. The Nominating Committee shall be selected and shall function according to the provisions of Chapter V. of these By-Laws.

Committee on Finance Elected

Section 5. The Committee on Finance shall consist of three members elected by and from the Board of Trustees, and three members elected by and from the House of Delegates, and their term of office shall be for six years; provided that the term of one Trustee member shall expire every second year, and the term of one Delegate member on each alternate year. The Treasurer shall be a member ex-officio, his capacity being advisory and without vote except in case of tie. The committee shall elect its own chairman. It shall prepare a budget to be submitted to the House of Delegates at the annual meeting, and it shall control the expenditure of money by officers and committees, as provided in Chapter IX of these By-Laws. The committee is hereby authorized to require from any officer or committee any necessary fiscal information.

Scientific Committee Appointed

Section 6. The Committee on Scientific Work shall consist of three members, and shall have oversight of the scientific work of this society, and act in an advisory capacity regarding similar work in component societies. It shall arrange for papers, addresses, and orations for the annual meeting, and shall otherwise extend the scientific work of the society as it may elect, and shall render a report to the Program Committee at least six weeks before the annual meeting. It shall acquaint those who are to be on the program of that meeting with the conditions attached thereto.

Program Committee Elected

Section 7. The Committee on Program and Arrangements shall consist of three members, elected by the House of Delegates, with the President and Secretary as additional members ex-officio. It shall provide suitable accommodations for the annual meeting, viz: for the general and section sessions, House of Delegates, Trustees, committees, Woman's Auxiliary, and exhibits. It shall have charge of all details pertaining to the general arrangements. After receiving from the committee on scientific work the titles and abstracts of papers, with authors' names attached, it shall at least four weeks before the annual meeting issue a program of the entire session, giving the sequence of papers, discussion, and busi-

ness sessions; and this order shall be followed as nearly as practicable. When the outline of arrangements has been approved by the President and a joint meeting of this committee with the Committee on Scientific Work, it shall have the program and announcements printed and a copy mailed to each member of the society.

Publication Committee Elected

Section 8. The Committee on Publication shall consist of three members elected by the House of Delegates, with the Secretary an additional member ex-officio, and the Editor of the Journal sitting with the committee in an advisory capacity. It shall publish and distribute the Journal. Reports, papers, and discussions may be submitted to this committee for publication in the Journal; but the committee shall have authority to curtail or abstract, or to return to the author, such material as seems to them unsuitable for publication, with a statement of the reasons therefor.

Honorary Membership Committee Appointed

Section 9. The Committee on Honorary Membership shall be composed of three Fellows. It shall inquire into the standing and qualifications of all nominees for honorary membership in the society, and report the same with recommendations to the House of Delegates.

Welfare Committee Appointed

Section 10. The Welfare Committee shall consist of thirty-five (35) members, which number shall include the President and Secretary of this society, ex-officio, and each component county society shall be represented by at least one member. The committee shall elect one of its members to act as chairman and executive officer. It shall keep minutes and records of its transactions. It shall have supervision over legislative matters, public health, and public relations; subject when necessary to direction from or approval by the Board of Trustees or the House of Delegates. To this committee shall be referred all questions of professional welfare not included in the specific work of the Judicial Council. It shall be empowered to employ a special agent or agents, and to expend such moneys as shall be approved by the Committee on Finance and the Board of Trustees.

Hospitals and Postgraduate Work Committee Appointed

Section 11. The Committee on Hospitals and Postgraduate Study shall consist of three members. It shall supplement or extend, as necessary, the work of the Hospital Standardization Committees of the American Medical Association, American College of Surgeons, and American College of Physicians, and may consider hospital problems in general. It shall coöperate, when feasible, with the State Board of Medical Examiners, or other organizations, in matters affecting hospitals, hospital interns, and nursing. It shall advise concerning and promoting postgraduate study by members of this society.

Reference Committees Appointed

Section 12. Immediately after organization of the House of Delegates at each annual meeting the President shall appoint, from the members of the House, reference committees of five members each, unless otherwise provided, to serve during the session at which they are appointed. To these committees may be referred any reports, resolutions, measures, or propositions which have been presented to the House. When matter is referred to any such committee it shall meet forthwith, discuss the question referred, hear debate thereon by any interested member of the society, and shall submit its recommendations at the next session of the House for action.

Names of Reference Committees

Section 13. There shall be the following Reference Committees, and any others to be created by the House of Delegates as need arises:

(a) Credentials—to consist of one member to serve with the Secretary and the Treasurer, who are members ex-officio.

(b) Resolutions and Memorials.

(c) Constitution and By-Laws.

(d) Miscellaneous Business.

Section 14. On order of the President or House of Delegates any reference committee may be created a special committee in order to continue, after the annual meeting, work which has been initiated but which cannot be completed during that meeting; but there shall be a strict limitation, in the order of continuance, as to its function and term of life.

Special Committees

Section 15. Special committees may be created by the House of Delegates or by the Board of Trustees. They shall be appointed by the President, or the Chairman of the Board of Trustees, and their specific functions and term of life shall be clearly defined. The limitations in regard to incurring expense provided for in Chapter III, Section 2, of these By-Laws shall apply also to these committees.

Eligibility to Committees

Section 16. Members of all committees except as provided in Chapter III, Section 2, shall be selected from the corporate membership of this society.

Additional Members on Committees

Section 17. The President may at any time, on request of any committee, appoint additional members thereto, in order to meet unexpected or unusual demands on that committee; provided that the term of such emergency appointees shall cease with the close of the next annual meeting of the society.

Chapter IX

Finance

Section 1. Permanent Fund.

(a) There is hereby established in the custody of the Treasurer a Permanent Capital Fund, to consist of any money which may come to the Medical Society of New Jersey by gift or bequest and not otherwise designated, any balance remaining unexpended at the close of the fiscal year which the Board of Trustees may direct to be added to this fund, and such other money as may from time to time be available for this purpose.

(b) This fund shall be deposited or invested by the Treasurer in such manner as is by law provided for trust funds, or as the Board of Trustees may direct. The income from such funds may be used for the general purposes of the society, unless otherwise ordered, but the principal of the fund may be expended only for purposes of permanent value to the Medical Society of New Jersey, when so ordered by a two-thirds vote of the House of Delegates, such expenditure having previously been approved by the Board of Trustees and notice of such approval sent to the component societies at least one month in advance of the meeting of the House of Delegates at which action is taken.

Section 2. General Fund.

(a) On the first day of January in each year there shall be levied on each component society a *per capita* assessment on the membership of such component society, as hereinafter set forth (Par. b), to be paid to the Treasurer of the Medical Society of New Jersey not less than five days before the first of February, together with a list of the members for whom such payment is made. A similar *per capita* assessment shall be paid in the same manner immediately upon the admission or reinstatement of any such member, except that for a new member admitted after October first of any calendar year, one-half of the regular assessment shall be paid. Every member for whom the assessment is paid shall be listed as a subscriber to and entitled to receive the Journal.

(b) Two weeks before the annual meeting each officer and standing committee shall send to the Chairman of the Committee on Finance an estimate of the amount of money necessary for the work of his office during the next fiscal year. The Committee on Finance shall then proceed to consider and determine the amount of money to be raised, fix the *per capita* assessment to be levied on the component societies, and report its recommendations to the House of Delegates at the first session of that body. This report may then be approved, amended, or rejected by the House of Delegates but final action on it shall not be taken before the last session of the meeting.

(c) No officer or committee may spend more money than the amount allowed in the budget without approval of the Committee on Finance, which may, however, apportion to such officer or committee, on application, any unexpended balance of other items; provided that the total amount disposed of by the Finance Committee must not exceed the total amount voted by the House of Delegates, unless by special authority of the Board of Trustees.

Section 3. The fiscal year of the society shall begin on the first day of June, and the financial report of the Treasurer and of all officers and committees shall be for this period. The budget estimates and appropriations shall likewise be for the same period.

Section 4. All motions and resolutions appropriating money for special purposes shall fix a definite sum, and shall state the budget account against which the expenditure is to be charged. Such resolutions must be passed by the House of Delegates and approved by the Board of Trustees.

Chapter X

Component Societies

Section 1. County medical societies of this state that shall adopt the principles of organization in accord with the Constitution and By-Laws of this society may, upon application to the House of Delegates, receive a charter, and thereby become a component society in affiliation with the Medical Society of New Jersey as hereinafter provided.

Section 2. Charters shall be issued to county societies having at least ten members, under seal of the Medical Society of New Jersey and signed by the President and Secretary; but there shall be only one component society chartered in each county. Upon re-

commendation of the Board of Trustees, this society may revoke the charter of any component society whose actions are in conflict with the letter or spirit of the Constitution and By-Laws.

Section 3. (a) Each component society shall judge of the qualifications of its own members but, as such societies are the only portals to this society and to the American Medical Association, it is recommended that every reputable and legally registered physician shall be deemed eligible to membership in a component society; provided, an active member of one component society shall not be eligible to active membership in any other component society at the same time.

(b) When a physician applies for membership or when an application is made to be received on transfer, the secretary of the component society shall forward his name and address to the bibliographic department of the American Medical Association for such information as may be on file relative to his record Printed forms for this purpose will be furnished by the Secretary of this society. After the adoption of these By-Laws, no new member shall be enrolled or accepted on transfer until this provision shall have been carried into effect.

Section 4. Any physician who may feel aggrieved by the action of a component society in refusing him membership, or any member of a component society who has been suspended or expelled, shall have the right of appeal through his District Councillor to the Judicial Council. The powers of the Judicial Council and its method of procedure are defined in Chapter VII of these By-Laws.

Section 5. When a member in good standing in a component society moves to another county of this state, his name, upon request, may, by a majority vote of those present, be transferred to the roster of the component society into whose jurisdiction he moves.

Section 6. Any physician living on or near a county line may hold his membership in the component society most convenient for him to attend, on permission from the component society in whose jurisdiction he resides.

Section 7. Each component society shall elect a reporter, who shall furnish the Editor with brief reports of its meetings and of items of interest concerning the society and its members, extracts of papers and interesting case reports, notice of the prevalence of contagious and other diseases in the county, and the election, removal or death of members.

Chapter XI

Any officer of this society may resign his office, or he may be removed therefrom by a two-thirds vote of the House of Delegates, when guilty of neglect of duty, improper conduct, or upon violation of the Constitution and By-Laws. In either or all cases the society shall fill the vacancy so made as provided for in Article IX of the Constitution and in Chapters V and VI of the By-Laws.

Chapter XII

Rules of Conduct

The "principles of medical ethics" adopted by the American Medical Association shall govern the conduct of the members of the Medical Society of New Jersey in their relations to each other and to the public.

Chapter XIII

Rules of Order

The deliberations of the society shall be governed by parliamentary usage as contained in Roberts' "Rules of Order", when not in conflict with this Constitution and By-Laws, unless otherwise determined by a two-thirds vote of its respective bodies.

Chapter XIV

Regulations Concerning the Degree of Doctor of Medicine

Section 1. Candidates for the degree of Medicinæ Doctor may apply to any component society of this state, and shall be admitted to examination under the following rules and regulations:

First. Each component society shall appoint annually, or *pro re nata,* a committee of not less than five members, who shall conduct the examinations.

Second. All examinations shall be in the presence of the Medical Society of New Jersey at a regular meeting; and no candidate shall be examined until he has given satisfactory evidence of having reached the age of twenty-one years, is of good moral character, that his preliminary education has been such as to qualify him for the study and practice of medicine, and has pursued his medical studies in some medical college whose requirements do not fall below the minimum standard of the Association of American Medical Colleges.

Third. The examination shall extend to all of the branches taught in the medical schools recognized as aforesaid, and the candidate shall then be balloted for by the Medical Society of New Jersey. If he shall receive the approving votes of two-thirds of all the members present, the presiding officer shall give a certificate to that effect to the candidate.

Fourth. The certificate may be presented at the next or any subsequent regular meeting of the Medical Society of New Jersey, not extending beyond the period of three years, with a written thesis upon some medical subject; and if, upon a ballot, he shall be approved by a majority of the members present, the candidate, upon the payment of fifteen dollars, shall be entitled to receive a diploma in the following form: (Here follows the form of diploma.)

Chapter XV

Amendments

These By-Laws may be amended at any annual meeting of the Medical Society of New Jersey by a two-thirds vote of the members present, provided that at least fifty members are present; and, provided further, that the amendments shall have been submitted to the Committee on Constitution and By-Laws, and shall have been twice read in open meeting and laid upon the table for one day.

Upon the adoption of this Constitution and these By-Laws all previous Constitutions and By-Laws are thereby repealed.

Medical Economics

HOW THE FAMILY DOCTOR CAN INCREASE HIS USEFULNESS AND HIS INCOME

H. J. Langston, M.D.,
Danville, Va.

(As explained in the January and February issues of the Journal, we are reproducing, from the Journal of the Tennessee State Medical Association, of February, 1928, the prize essays in the contest offered last year through Southern Medicine and Surgery. This is the third of the series, and shared the second prize with Dr. Johnson's paper, published in our Journal of February.)

Apparently there has been very little in the pages of history that gives evidence which would suggest how the family physician could properly increase his usefulness and at the same time have an income commensurate with his life work. It is timely, therefore, that suggestions should be made which would produce a more useful life in the family physician and at the same time provide for his household.

Principles which should be followed in order for the family physician to increase his usefulness are as follows: (1) Proper attitude. (2) Proper spirit of coöperation. (3) Proper understanding of his life work. (4) Proper vision. (5) Proper understanding of the social group. (6) Open mind toward all things both old and new.

(1) Even though history reveals the good work of the physician there are many evidences all along the way which show that the physician's usefulness has not been as great as it should have been. He has had the wrong attitude toward his fellow practitioners and in many cases toward his patients. Because of this wrong attitude his usefulness has been greatly impaired and he has failed to accomplish what he should in his very important calling. The physician's attitude should be that of recognizing his fellow practitioner as his brother and friend; never as his competitor. The objective of each physician should be that of stamping out infectious diseases and assisting people to live a normal, healthy, happy life. The selfish attitude, therefore, of trying to get a fellow practitioner's patient is destructive and harmful and frequently leads to bad feeling; also it gives the wrong impression to patients. Patients should not have the impression that all the doctor wants is a patient and a fee. On the other hand, the impression should be that the doctor is tremendously concerned about finding out the causes of diseases and as far as possible removing these causes, and as he removes the causes he is able to help the patient to regain his or her health. The attitude of the physician should be very similar to the attitude of Jesus of Nazareth. No finer thing can take place in the profession than developing the right attitude. It will do more to increase the usefulness of the family physician than one can estimate.

(2) The family physician should have a real spirit of coöperation with his fellow practitioners and with the City and State Boards of Health. His objective is that of these bodies and if that spirit can prevail in an effort to help the public to understand the importance of having all ailments looked after scientifically, the physician will not only become more useful but his income will be very much increased. On account of the bad spirit, no doubt, we have given the finest opportunity for the irregulars to come in and do their deadly work. In truth there is a real necessity among physicians for a cooperative, helpful spirit.

(3) The calling of a physician is no doubt one of the highest of all the callings of the human race. His contacts with the members of families is very different from the contacts of any other calling known to man. His op-

portunities are unlimited; his chances to do good or to do bad are much greater than in any other calling. If he has equipped himself fully and understands his life work he can help many people to understand why we have so many infectious diseases and how many of these diseases can be prevented; also why certain diseases should be looked after promptly and properly. In this connection he will be a great benefactor to society in an educational way in imparting to the fathers and mothers such information as will make it possible for them to reproduce the finest specimens; how the expectant mother should be taken care of and how the new-born baby should be looked after in order to prevent many infectious diseases and to treat such diseases as may befall the child.

(4) The vision of the physician should be as large as humanity itself. He should be able to see why we have to carry such heavy burdens in the way of institutions that are non-productive, and are a constant liability to society, and how we should begin to take steps to eliminate these heavy burdens. These burdens will continue to increase with the growing of civilization unless the vision of the physician increases and he begins to play the part he should in preventing certain nervous crashes and mental derangements which are so common in our nation at the present time. His vision should not only include this pathologic section of society but it should include that of seeing that every member of society in his neighborhood is kept as nearly healthy as possible. If there is a section in it that is very much diseased the healthy section is also endangered.

The physician's vision should not be superficial by any means, but it should be far-reaching in that he is thoroughly acquainted with history, sociology, economics, psychology, industrial and agricultural problems that face us, and the various religions. He, of all men, should be most tolerant in his conception of humanity. He has the position of knowing the causes of a good many things that actually exist and, therefore, compassion should be one of the things that should always be upmost in his outlook on life.

(5) The physician goes into every type of home on the face of the earth. He sees, like no other person does, the prevailing sociologic conditions. He, of all persons, should be thoroughly trained in the principles of sociology in order that he might understand the vast problems that face us in our social life at large. Until many of these sections of society that live in hovels and huts, under insanitary conditions, are brought into better houses, better sanitation, better social environment and better education, we will have them as liabilities. Until this problem of the social life in our country is solved it is impossible to say that our society is safe. Then, there is a great gap between the higher, the middle class and the lower social groups. This gap should be bridged over and the physician with the proper understanding of the outstanding difficulties in these groups can diplomatically, tactfully, bring to pass better social conditions by revealing to the members of the human family the real difficulties.

(6) All through the history of medicine and surgery progress has been slow because of the fact that men's minds are closed to anything new and also closed to a great many things old. Of all persons in the world, the physician should be the last to allow his mind to be closed to any principle of fact with which he is not thoroughly acquainted. There are many things old in the practice of medicine that are good; many things that are bad. There are a great many things new in the practice of medicine that are good; there are some that are, perhaps bad; but we should keep the mind alert to thresh out and discover the true facts and these should be the instruments to be used in our daily toil. If the mind of the physician is open and is willing to grow, the next 20 years bids fair to bring us new discoveries in our field of work which will make us far better physicians, and humanity at large will be the beneficiary.

Now, the principles that should direct the family physician in increasing his income are as follows:

(1) Deal with people in a business-like way. Be certain that you are interested in the ailment the patient has and that he is your primary concern. Let that idea be upmost in the mind of the patient. When results have been obtained and the patient is well, let the patient understand that you expect reasonable fees for your services, and if the patient is well-to-do and able to pay more than the average fee, that patient should pay the fee charged willingly and gladly. The physician will be able to create a habit of promptness on the part of many of his patients if he will deal fairly and frankly about the business side of it.

(2) Have a good system of keeping records right; the fewer errors made in the physician's office the better off he will be with reference to his income. If he is careless and slip-shod, then the patient will become care-

less and indifferent. If the physician does not have a system and cannot work out one for himself he should have someone prepare one for him.

(3) The family physician should systematically plan for his household; that is to say, if he has 3 children or more, he should begin early in their lives in setting aside so much money each year to pay for their educations. There are a good many ways this can be done. He can either put it in a substantial trust department of some good bank or he can invest it in certain securities that are reasonably safe and then when the boys or girls are of college age they will have something definitely ahead of them to pay college expenses and to pay for their professional training.

(4) The physician providing for his household, again, should carry insurance on his life; that is, general life insurance and accident and health insurance. If he systematically and in a business-like way takes policies in good standard companies, when the rainy day comes his family will not be left in need. Concretely speaking, the physician whose income is $10,000 a year should by all means carry approximately $50,000 life insurance and a reasonable accident and health policy. The physician may have to skimp and make a good many sacrifices but such skimping and sacrificing is worth while.

All physicians should have their principles, as outlined above, always before them in the conduct of their professional work and in the management of their personal business affairs. It is commonly said that the physician is very careless about his personal accounts with reference to patients. The day will arrive when people will not say this: also the day will arrive when people will say that the physician is primarily concerned with the health of all the people of his community and then with the health and happiness of all people. When these things come to pass the family physician's household will be well provided for and he will be one of the most useful and influential citizens of any community.

Yum Yum

Angry Customer (tossing a package on the counter)—"Makes washing a pleasure, does it? Does the washing while you wait, does it? It's the little flakes of soap that—"

Grocer—"Madam, one moment, please. This is not soap."

Angry Customer—"Not soap? Not soap?"

"No. Your daughter asked for a half-pound of grated cheese and a half-pound of soap flakes. This is the cheese."

"My stars! And last night I made a pudding—"—Progressive Grocer.

Observations from the Lighthouse

INFLUENCE OF PHYSIOLOGIC RESEARCH ON MODERN SURGERY

Under this title, J. Shelton Horsley (Virginia Med. Monthly, 55:790, Feb., 1929) makes some interesting observations that prove the value of experimental investigations; observations and results that ought to be presented to those misguided sentimentalists who oppose experimentation with laboratory animals, if there was any reason to hope the information would be assimilated.

A few of Horsley's citations follow:

"It has been shown by Ivy and Farrell that the secretion of gastric juice is stimulated by some material circulating in the blood. In a female dog, Ivy transplanted a portion of the stomach to tissues beneath the mammary glands doing the operation in stages in order to develop a blood supply to the transplant. When the transplanted part of the stomach had been disconnected, it was found that feeding the dog normally would produce from the isolated pouch a certain amount of secretion of gastric juice containing hydrochloric acid and pepsin. Of course there are other stimulants for gastric juice besides this, but the determination of a humoral stimulant for the hydrochloric acid in the gastric juice is also interesting from a clinical view, as many diseases are accompanied or preceded by achlorhydria, and it seems that they may in some way destroy or neutralize this normal blood stimulant.

The absence of hydrochloric acid in the gastric juice for a long period of time is undoubtedly a potential handicap to health even though apparently there may be no symptoms. Donald R. Black has found that from 7 to 10% of routine gastric analyses show achlorhydria. It has long been known that achlorhydria is present in pernicious anemia, and that it precedes the typical blood findings of this disease by months and sometimes by years. Such other diseases as anorexia, abdominal distension, diarrhea, urticaria, arthritis deformans, and myocarditis have been attributed to achlorhydria, and yet they are often found in patients whose gastric secretion is normal. The association of sclerosis of the spinal cord with achlorhydria has been particularly striking, as this disease has often been found to accompany pernicious anemia.

The absence of hydrochloric acid in the gastric juice permits the accumulation of bacteria in the upper intestinal tract. In cancer of the stomach the achlorhydria is a marked feature. In operations upon such cases the risk is distinctly greater because of the possibility of sepsis from the stomach, whose normal acid gastric secretion would have a marked antiseptic effect.

Following the suggestion of W. H. Higgins, attending physician to St. Elizabeth's Hospital, we give dilute hydrochloric acid in cases of cancer of the stomach before an operation. In order to insure a fairly constant supply of free hydrochloric acid in the stomach, six drams of the official dilute acid are given in three pints of water daily for two days prior to the operation. Small quantities of this solution are taken hourly, and not as usually prescribed after

meals. In cases of pyloric obstruction frequent lavages with 0.5% hydrochloric acid may be substituted. In conditions in which surgery of the upper intestinal tract may be anticipated for a few days, this procedure would tend to lower the bacteria in the intestinal contents and even after emergency operations on the upper intestinal tract it may be advisable to administer hydrochloric acid in this manner.

One of the greatest advances in recent years in the general treatment of toxic conditions is the continuous intravenous injection of dextrose solution, first advocated by Matas, who has made so many valuable original contributions to surgery. A 5% dextrose solution in Ringer's solution may be given intravenously continuously for days. The dextrose solution must be pure, otherwise, reactions may occur, and the same precautions must be taken to use freshly distilled water and a prepared tube as in other intravenous injections. We have given it three days in succession, having a buret so arranged that the flow can be accurately controlled. Usually an intravenous cannula is employed, but for a period of a few hours the intravenous hypodermic needle is often satisfactory. In cases of shock this method is of great value. If used in the early stages of approaching shock it is preventive, and is often a reliable remedy even after shock has been established. At any rate, it will serve to maintain the blood pressure until a blood transfusion can be done.

It must be recalled that the conditions in shock and in sepsis are different. The chief phenomenon of shock is the lowered blood pressure due to lack of fluid in the vascular system; consequently, fluid must be supplied quickly. The heart is not over-strained, but there is an insufficient amount of fluid upon which it must contract. In such instances, 500 c.c. or more of dextrose solution can be given intravenously within a few minutes. As soon as the pulse picks up, the rate of flow should be diminished and maintained only at such a level as is necessary to keep up a sufficient blood pressure. If this requires an undue amount of the solution after a few hours, blood transfusion should be done. About 1000 or 1500 c.c. can thus be administered intravenously in cases of shock within the course of 2 hr. without any detrimental effect. If this rate of flow is continued longer, it is dangerous and there is, of course, the possibility of edema of the lungs and of other complications which must be watched.

In sepsis or in dehydration, however, the intravenous administration of dextrose solution should be much slower. Usually an initial flow of 200 or 250 c.c. an hour is sufficient, and this should be gradually cut down to 100 or 150 c.c. an hour. We have found that a flow of less than 100 c.c. an hour, even with an intravenous cannula, and especially with a hypodermic needle, permits the cannula or needle to clog. After every 500 c.c. of 5% intravenous solution, 10 units of insulin are injected into the rubber tube. The administration of insulin with dextrose solution in shock was described by Fisher and Snell, who, with Thalhimer, Ort, Irwin and others, advocated the use of dextrose with insulin in post-operative acidosis and toxemia.

Not only in toxic conditions and in shock, but in operations upon the stomach or intestinal tract where physiologic rest of these viscera for repair is indicated, nutrition can be maintained for many days by this method, and more effectively and with much less discomfort than by either hypodermoclysis or rectal administrations. In many affections of the liver the administration of intravenous glucose with insulin is excellent therapy, for the burden of storing the carbohydrates and giving them off is one of the chief hepatic functions. By this method some physiologic rest for the liver is secured. In operations upon patients with hepatitis, which Evarts Graham has shown practically always accompanies inflammation of the gall-bladder, the function of the liver may be greatly aided by the intravenous introduction of dextrose.

In intestinal obstruction of the upper intestinal tract there is, according to Haden and Orr, a marked decrease in blood chlorides and an increase in the blood urea, and the intravenous administration of sodium chloride is helpful. They recommend that sodium chloride be given, one gram per kilogram of body weight as the initial dose; then the chlorides in the blood should be watched to estimate subsequent doses. They first conceived that the beneficial action was due to the fact that the toxic material elaborated by the obstruction was neutralized by the sodium chloride. They have, however, abandoned this theory and the more recent explanation is that low blood chlorides in obstruction are at least partly due to the loss of chlorides from vomiting or from pouring out into the stomach or intestine large quantities of fluid containing chlorides which, on account of the pathologic condition, are not readily absorbed. Practically the same blood changes are found after a duodenal fistula in which there is loss of gastric juice and of pancreatic juice, and the intravenous injection of saline solution is helpful in such cases."

Lay Mirror Reflections

TEMPLE DOCTOR FOUND AT BERGAMA

(From N. Y. Times, Jan. 15, 1929)

BERLIN, Jan. 14.—German excavations at the ancient town of Pergamum in Asia Minor have revealed temples devoted to a hero worship predating the worship of a single God in that particular section, Herr Wiegand, director of the Old Museum of Berlin, stated on his return from an inspection tour in the Near East.

This field already has yielded to German museums a rich treasure in rare pieces of ancient sculpture and altars. Since renewal of the work a fortified citadel has been unearthed and within its walls a palace was found containing a court with scores of well-preserved columns.

Outside of the former city of Pergamum, now called Bergama, another project of excavating has been begun. A sacred treasure of Aesculapean culture was buried at this place, and bits of truncated columns are still peeping above the meadows. (Aesculapius or Aesklepios was the old Greek divinity of medicine.) Two large temples were found in this region, which is about one kilometer long. Most of the space, however, is filled with graves. Both of the temples are round, with concentric paths. They are made of costly colored marble and date back

to the period of Roman ascendancy. One of these edifices is believed to have been constructed for Galenus, a noted physician of that period, and it is hoped that deeper excavations will show how this man, regarded as a phenomenon of his day, effected his cures.

HIMSELF HE COULD NOT HEAL

(New York Times Editorial, Jan. 19, 1929)

While death must come to all, it seems particularly tragic that Dr. Goldberger, who found the cause and cure of a disease from which about 100,000 suffered every year in America alone, should have himself died of a related disease for which no cure has yet been discovered. After fifteen years of study he ascertained that pellagra is definitely avoidable and practically curable. It was assumed for some time that it was a germ disease, but it appeared that it could not be communicated from one person to another—that it was neither contagious nor infectious. It was finally traced to diet and has yielded to a treatment which was arrived at through long experimentation, first with rats and then with human beings. The preventive "vitamin PP" was Dr. Goldberger's discovery.

His last work of rescue on a large scale was at the time of the Mississippi flood, when several tons of his preventive yeast cakes were sent to the region, thus averting a threatened outbreak of the disease. But his "vitamin PP" will go on saving the lives of thousands, who will never know, as those refugees did, that they have been saved from it by him.

It is of interest that Dr. Goldberger, who brought this great gift to America and to the world, was born in Austria and came to this country as a child, that he was educated in the College of the City of New York, and had his medical training in Bellevue Medical College. He had been for nearly thirty years in the United States Public Health Service. He made original investigations of the causes of several diseases, but his name will always be associated with the one whose banishment from the earth he made possible.

THE COUNTRY DOCTOR

(New York Times, Feb. 3, 1929)

Devotion to duty with but slight reward is a favorite theme of poets. The medical profession continues to show examples of it. A tale comes from Kewaunee, Wis., which will remind some of those who read Balzac of the sacrifices made by "The Country Doctor". The hero of this story is Dr. W. M. Wochos.

The countryside was snowbound and had been for days when a telephone call came from a farm 9 miles away. A baby was to be born. The doctor started out immediately in his skishod motor car, but after 3 miles bucking the drifts he abandoned the car and won through the snow to a farmhouse from which he telephoned instructions. On a snow-plow the doctor then made 3 miles more, but when the plow broke down he took to his fect again, and after several hours of hardship covered the 3 miles—and found mother and child doing well.

Whoever has lived in the country knows at least one such example as this of medical heroism. Country doctors rarely grow rich, and if they do it is not from fees garnered at lonely farmhouses miles away in the snow. But having dedicated themselves to the care of humanity they usually go through with all the difficult phases of it, content to know that they are keeping the faith and that they have the affection and respect of their neighbors.

HOW TO BE HAPPY THOUGH EIGHTY

(N. Y. Times, Jan. 14, 1929)

To the roster of those who believe that "old age hath yet his honor and his toil" must be added the name of Nathan Edward Beckwith, Yale '74 S., who writes to The Alumni Weekly to inquire:

"Since men of 45 are not wanted for jobs and at 60 or 65 are retired, what is there for those of us who happen to hang on to 80?"

One judges from his letter that he can still make a pretty good spurt for 50 yards, take a 20-mile horseback ride or climb 2000 or 3000 feet up a mountain. Answering his own question, he finds time now to fill in the lapses in his education in the "ologies, history, literature and languages." Here is "adult education" with a vengeance!

His chief delight, however, is in travel and natural scenery. "Whether there be some vestigial sense of preëxistent arboreal life may be a question, but I make for the mountains and woods."

Communications

TUBERCULOSIS CAMPAIGN FOR APRIL

(Submitted by Ernest D. Easton, Executive Secretary, New Jersey Tuberculosis League)

The annual nation-wide campaign for the early diagnosis of tuberculosis initiated by the National Tuberculosis Association is having the hearty support of New Jersey physicians, health officers, sanatoriums and lay organizations.

The State Medical Society will repeat last year's series of radio broadcasts given by sanatorium heads and tuberculosis specialists. The Department of Institutions and Agencies and the Department of Health are coöperating in making the latest vital statistics available. The State Department of Education endorses the movement for fore-stalling adult tuberculosis by proper health training and examinations during the school years, especially in the high school groups. Lectures and showing of lantern slides on childhood tuberculosis are being arranged for county medical societies throughout the state.

Tuberculosis in childhood is being especially emphasized in this year's campaign, and an extraordinary effort is being made to reach the boy and girl in the "teen ages". Statistics recently obtained from the Department of Institutions and Agencies show the age group between 15 and 24 the largest now hospitalized in the state, including 15.1% of the entire sanatorium population. The necessity is apparent for detection of the disease by x-ray and tuberculin tests in the stages before the more advanced symptoms are evident. Examination of contact cases, even when in apparently good condition, is one of the points most emphatically stressed in the campaign.

In Lighter Vein

Taking a Dare

Solicitor—"Would you indorse our cigaret for two thousand dollars?"

Celebrity—"For two thousand dollars I'd smoke the darn things."—Life.

Solemn Occasion

Medical clinics and societies of Los Angeles today were preparing to do honor to Mrs. Margaret Sanger, founder of the mirth-control movement.—Los Angeles Evening Herald.

College Ways

"Why don't you answer me?"

"I did, Professor. I shook my head."

"But you don't expect me to hear it rattle away up here, do you?"

Fifty Per Cent Seer

Did you hear about the one-eyed Scotchman who demanded a half-price ticket to the movie? —Pointer.

Pain in the Fender

The automobile in which she was riding with her husband suffered a severe shock and minor bruises.—Portland Oregonian.

Chooses His Own Time

Magistrate—"Is your husband a temperate man?"

Woman—"Yes, but only when he's sober."—Boston Transcript.

Safe Bet

"So your daughter is attending a co-ed college?" said the old friend.

"Yes," sighed the mother, "but I am afraid most of the lessons she is learning are in the school of experience."—Cincinnati Enquirer.

Business Failure

"What is Schmidt doing now?"

"He opened a shop recently."

"Successfully."

"No, he was caught."—From the Fliegende Blaetter, Munich.

Easy

Two business men were discussing a competitor who once had been an employee of the older of the two men.

"I happen to know that fellow is a sharper and not above lying or stealing when it's to his advantage," remarked the older man.

"Do you know him personally?"

"Know him? Say, I taught him everything he knows."

Even

The Spatts had been at it again.

"An furthermore," said Mrs., concluding her long tirade, "you certainly aren't much of a husband."

"Well, my dear," Mr. retorted wearily, "I can truthfully say that you are a lot of wife."

Current Events

TRISTATE MEDICAL CONFERENCE

The eleventh regular Tristate Medical Conference met in the Transportation Club Rooms, Biltmore Hotel, New York City, on February 2, 1929; being called to order at 10:30 a. m. by Dr. Harry R. Trick, of Buffalo, President of the New York Medical Association. The members present were:

From New York—Drs. Harry R. Trick, Buffalo; James Newell Vander Veer, Albany; James E. Sadlier, Poughkeepsie; Frank Overton, New York City; Joseph S. Lawrence, Albany; John A. Card, Poughkeepsie. Dr. William H. Ross, of Brentwood, L. I., and Mr. Lloyd Paul Stryker, of New York City, were present as guests.

From Pennsylvania—Drs. Thomas G. Simonton, Pittsburgh; Harry W. Albertson, Scranton; Walter F. Donaldson, Pittsburgh; and Frank C. Hammond, Philadelphia.

From New Jersey—Drs. Ephraim R. Mulford, Burlington; J. B. Morrison, Newark; and Henry O. Reik, of Atlantic City

Dr. Trick: It affords me a great deal of pleasure to welcome you in the name of the Medical Society of the State of New York. We have been privileged to enjoy your hospitality in the past but there is no thrill quite equal to playing the part of host. We appreciate the fact that you have taken the trouble to be with us today, and we hope that this meeting will be both pleasant and profitable.

I believe it is the intention to continue today the discussion started at the previous meeting, under the head of "Further Consideration of County Medical Society Opportunities", by Dr. Henry O. Reik, of Atlantic City.

Further Consideration of County Medical Society Opportunities

Henry O. Reik, M.D.,
Atlantic City, N. J.

It was the concensus of opinion at the last Tristate Medical Conference that another session should be devoted to consideration of the problems of county medical societies. Those of you who were not present at the Atlantic City meeting have since had the opportunity to read the very excellent paper presented there by Dr. Joseph S. Lawrence, for it has been published, in full or in part, together with the discussion that followed its reading, in the official journals of the 3 states. It is unfortunate, for you as well as for me, that it devolves upon the Secretary to lay the basis for today's conference, because he cannot be expected to properly carry forward the discussion so ably launched by Dr. Lawrence.

As it was understood to be the intention of this group to give further consideration to the problem as presented at the last meeting and to cover additional points that had been omitted or only hinted at then, we shall recall your attention to some aspects of Dr. Lawrence's paper, and then proceed to embellish those features and to introduce a few new ones. In his opening paragraphs, Dr. Lawrence described the origin of county societies, their present relationship to state and national societies, reminding us that "the strength of the state organization * * * depends upon the health and vigor of its component county societies". He then classified the opportunities of county societies under 4 headings: scientific ad-

vancement; social advantages; internal relations; and public relations. As there is little to gain by altering the classification, and as it can be made to cover the new points to be presented, we shall accept it for the purposes of this paper, and thus give continuity to our general discussion.

(1) *Scientific Advancement.* Under this heading, attention was given primarily to the preparation of attractive programs, the utilization of hospital and clinic facilities, the number of meetings to be held per annum, means of attracting a larger percentage of attendance, and the very important rôle played by the secretary of any organization. Upon re-reading the paper and the discussion, it seems to the writer that those items were pretty well disposed of at the last meeting, but, there is no reason why any or all of them may not be referred to again today.

(2) *Social Advantages.* This second heading necessarily overlaps somewhat with the first and it will be found, both in the paper and the published discussion, that it was so treated; not only are sociability and good fellowship promoted by members coming together for scientific discussion, but, social attractions may well be used to bring members together with the idea that once they are corraled they will take an interest in the consideration of scientific and economic questions. In New Jersey, for instance, it is almost a universal custom to have the county medical society meetings held at such times that they can be preceded or immediately followed by a luncheon or dinner, and we believe that fact alone accounts in large measure for the high average of attendance —somewhere between 50-75% membership; being lower in the big city than in the rural counties. As a colored waiter remarked at one of our county meetings: "Doctors sho do love to eat."

(3) *Internal Relations.* The next 2 headings in Dr. Lawrence's classification, in a manner similar to the divisions already referred to, naturally overlap or merge somewhat into one another. It is under these headings, however, that we find the broadest opportunity for extension of the paper and discussion presented at the last meeting and, without departing from the original classification, we may suggest that further consideration of both internal and external relations of the county medical societies be, first, upon the construction and development of a strong organization, and secondly, upon the effective employment of that machinery. Let us, therefore, first give some thought to the county society as representing the organized medical profession.

Discussing Dr. Lawrence's paper, Dr. Vander Veer said, with reference to some state society plans in New York, "We are discussing now whether it will not be a wise plan to have the secretaries of the county societies, and perhaps the presidents also, meet together once or twice a year, exchanging views among the various groups in the state society." Having had the privilege of attending the Twenty-Third Annual Meeting of the Secretaries of the County Medical Societies of the State of Pennsylvania, last December, and noting the effective working power developed by association of those officers, we were later much pleased to learn that Dr. Morrison had persuaded the Board of Trustees of the Medical Society of New Jersey to provide for a similar annual meeting of the secretaries and reporters of the county societies of that state; so, just 1 week ago today, New Jersey gave her answer to Dr. Vander Veer's suggestion, and illustrated again that the 3 states are thinking alike on certain questions. Dr. Lawrence has said in his introductory remarks: "There is nothing more fundamental to our organization than the welfare of the county society; it is that upon which we are built." A sentiment which we have all heard repeatedly, of course, whenever the officers of state societies met under the auspices of the American Medical Association, but none the less important, because of that fact, for us to consider right now. At our meeting of the county secretaries of New Jersey last Saturday, we expressed the view that as a preliminary to any discussion of organization work, it might be well to consider whether we have in existence an effective county organization with which to work, and we raised a few questions as to how well the machine is prepared to function; questions which we would like to present here today.

(a) *Membership.* The first is, whether our county societies are fully organized; whether each has enrolled every eligible member in the community? Comparison of the membership lists of our state societies with the A. M. A. Directory of licensed physicians seems to show that in each state there is an average society enrolment of approximately 2/3 of the practicing physicians; and that leads one to ask—what is the matter with the other 33% of physicians who are not members of state societies? Are they all unworthy? Has a proper effort been made to enlist all those who are eligible and worthy of membership? Recognizing the fact that "eligibility" does not necessarily mean "desirability", and that some very worthy physicians are not "joiners", we still apparently have a margin of worthy eligibles outside of our membership.

From the scientific and professional points of view, the strength of a society does not depend upon mere numbers, but in some other respects the number of members constituting an organization does become a matter of importance. All the titles of the most distinguished member of your society will not make as great an impression upon a local Freeholder or a State Senator as will the statement that he represents 50 or 2400 votes. Furthermore, when legislation is pending and the organization claims to represent the medical profession of the county or state, it is disturbing to have a legislator say that some of the most prominent physicians of his district are not represented by the society and possibly are opposed to its requests. We should make every effort to strengthen the organization in each and every county by bringing the enrolled membership up to the limit of possibility.

Concerning this question, Dr. Walter F. Donaldson, addressing the Pennsylvania County Secretaries in 1927, said: "That we may consistently claim that the county medical society unites the representative physicians of the county, we advocate an aggressive policy in enlisting county medical society membership among recent licentiates, conservatism in selection among older practitioners, and close adherence to the high ideals of the society's expressed purposes in the administration of the society's affairs." At the same time, Dr. Donaldson tempered that advice by recommending the plan in vogue in Pennsylvania, and I believe in Michigan, Wisconsin, and possibly a few other states, which Dr. Donaldson described as follows: "That we may not be imposed upon by applicants for membership with unsavory reputations or doubtful records as undergraduates, interns, practitioners, or former members of other societies, our by-laws require that the names of

all applicants shall be submitted to the biographic department of the American Medical Association, which has on file an up-to-date record of all of us from student days. That the privilege of three-fold membership in county, state, and national medical societies may be more valued, we urge the adoption and enforcement by all constituent state medical associations of a similar by-law."

(b) *Individualism.* Physicians are frequently characterized as individualists, and it is natural that they should have been in the past, and possibly that they should remain so to a considerable extent as regards their dealings with the problems of disease. In other words, it is praiseworthy to treat patients rather than diseases. But, in matters pertaining to organization, it is essential that they shall abandon this individualistic attitude and merge themselves into a body politic striving for the good of the whole. The principles upon which our organization is based are most democratic; every individual member has full opportunity to participate, directly or through chosen delegates, in every function of the organization. In the county society there is perfect freedom of individual speech and action. In the state and national societies, where representation must be by delegated authority, personal interests are fully protected by formal safeguards. It is right and proper to argue questions, and every county society and every member thereof must have the right to expression of opinion and registration of vote upon debatable questions; but, after the vote has been taken and the result announced, it becomes the duty of every member to support the majority decision, for continued opposition by a defeated minority is indefensible. Within a few hours after we had stated that opinion to the New Jersey secretaries, Mr. Paul Lloyd Stryker, at the annual dinner of the Hudson County Medical Society on Saturday last, gave voice to exactly the same sentiment, differing with us only in that he voiced it much more emphatically. A number of publicists and not a few members of the medical profession have recently referred to the necessity for abandoning individualism in our relations with the public; the point we desire to emphasize is that we must first learn to work together harmoniously within the profession. If the national or state organizations are to be effective, they must be able to use the full strength of their component parts. A chain is only as strong as its weakest link; a county society that does not function or that cannot be relied upon, certainly weakens the state and national organizations. We shall not get far toward the solution of our public problems until we learn to act with a fair degree of unanimity, certainly to act upon the basis of majority rule. In considering some of the serious public questions that will confront us, it will be well to remember the axiom of the revolutionists that it would be "better to hang together, than to hang separately".

(c) *The Machine.* The individual physician is but a cog in the small county society wheel which coördinates with the larger state society wheel of the national body. Each cog is important, of course. A broken cog in even the smallest wheel may stop all the machinery. Each branch of the organization is dependent upon the other. The national society owes something to the state society and the latter owes much to the county society; but there is a reverse to that medal for it can be equally truthfully and honestly said that the individual member, the county, and the state societies owe something to each other in the progressive upward direction. It is the duty, the obligation, of every member to contribute toward keeping the machine in condition for smooth running.

(d) *Intramural Problems.* What we have been saying about individualism and the relationship of cogs to wheels concerns the machine mainly from the standpoint of "form construction". There is another important aspect to any machine, however, and that is "quality construction". Is your machine going to be comparable to a Model T or a Lincoln? Will the profession be satisfied with any sort of a body provided the chassis is mechanically perfect, or shall we demand a Fisher body set upon this running gear? While urging in the first portion of this paper that our numbers be increased to the limit of eligible and worthy members, we were not unmindful of the fact that due consideration should be given to qualifications that would determine the worthiness of candidates for membership. A further important question arises, as to what control county societies shall exercise over their members and what responsibility the society shall assume for the conduct of its members. It should go without saying that if we pose as an organization of professional men we must have definite standards for admission to membership and we should maintain a high standard of professional conduct on the part of our members. Not a little has been written recently about the necessity for "housecleaning" within professional ranks. While we have been somewhat smugly thinking of the ambulance-chasing attorneys as being a disgrace to the legal profession, our brethren of the Bar Association have uncovered the fact that some physicians (we hope none of them were members of our state societies) have been intimately associated with shyster lawyers. Furthermore, prominent members of our own guild frankly announce that there are some skeletons in the medical closet which should be exposed and fumigated. In New York City, only a few days ago, Dr. John A. Hartwell, President of the New York Academy of Medicine, in his inaugural address, said that the practice of "fee-splitting" is an evil that has grown to alarming proportions, and he predicted that disaster and disgrace threaten the profession if it is longer tolerated.

We have been hearing similar charges for a long time—certainly the fee-splitting charge has been prominently before the profession for more than 15 years, for it was in 1913 that the American College of Surgeons was organized and one of the basic principles of that organization was a determination to drive the fee-splitters out of the temple. Personally, we doubt very much if the evil exists to the extent that is popularly supposed, but, we agree heartily with an editorial in the New England Journal of Medicine, issue of so recent date as January 24, that it is high time something should be done about it. That editorial says: "Although this is a subject frequently discussed, we are not aware of any very definite steps being taken to root out this evil. * * * Why should not the medical societies employ investigators who will ascertain the facts? If the practice is so prevalent that it is made the major subject of a presidential address someone must have evidence. We may suspect the irregularity but suspicion does not warrant general condemnation. Astute investigators ought to be able to get the evidence." In accord with that suggestion, we ask whether it is not the duty of each county society to start an investigation, or the duty of each state society to

act for its group, and to purge their lists of such members as may be found guilty of unethical practices, whether of this or any other sort. During the last national political campaign, there was much talk about "fact-finding commissions" to consider this or that subject. We are inclined to think the medical profession should adopt such a policy and appoint several committees or subcommittees to dig out the facts about a number of these disturbing rumors. We now have one special committee at work on the high cost of medical services; let us have an honest, sincere investigation of the charges of fee-splitting, of workmen's compensation insurance agents, or collusion with ambulance chasers, of alleged outrageous fees for simple medical or surgical services. If the profession is in as healthy a condition as most of us believe, we can well afford to submit to investigation; if it is not in such healthy state, we cannot afford not to have the investigation.

Perhaps those of you who are from New York have already taken the proper step in this direction in that provision of your new Medical Practice Act which establishes a Grievance Committee and in the appointment more recently of a Public Relations Committee of the state society. New Jersey has a similar Public Relations Committee, but under a different name; in that state society it is called the Welfare Committee. We have nothing comparable to the Grievance Committee. We do not know the corresponding situation in Pennsylvania, but we suspect that it will be well for all of us to provide some definite Judicial Committee with authority to investigate complaints of unethical procedures and with authority to punish the guilty.

(4) *Public Relations.* Now we come to the last of Dr. Lawrence's headings, public relations. It is the last but not the least important of his subdivisions for it embraces a host of difficult as well as interesting problems. At the last conference and up to the present moment in this one, consideration has been given principally to problems of organization and administration of county societies as a professional unit, but we have yet to consider if and how the county society can be made a useful force in the community, a factor in public welfare.

(a) *Political Activity.* There seems to be considerable diversity of opinion whether and, if at all, to what extent, county societies shall participate in politics. There is general acceptance of, indeed demand for, the idea that the national society shall exert its influence upon Congress whenever disturbing legislation is pending before that body; and it is understood that the national society officers may call upon the state societies for assistance. Likewise, it is understood that the state societies shall keep watch over state legislators with a view to preventing legislation detrimental to the public health or possibly destructive of established professional standards; and the county societies are supposed to be prepared to assist in this if and when called upon. Differences of opinion arise, however, whenever anyone suggests instituting legislation on behalf of the national or state medical organizations; and, especially does one encounter a division of opinion when the suggestion is made that a county society shall request its members to protest the election of legislators who have been even notoriously and flagrantly in opposition to the principles of scientific medicine. We would like to have an expression of opinion from this body with regard to the question: Is it proper and is it wise to enter the local political arena and attempt the defeat of candidates whose hostility to the medical profession is well known, and the election of candidates whose aid and support may reasonably be expected? There is no doubt whatsoever about the ability of the medical profession to decide an election in most districts, if it exerts its power, for the physician's personal influence with voters is far reaching. We see no impropriety in using that power on special occasions.

(b) *Public Education in Medical Matters.* A goodly number of state societies and a few of the larger county societies are now conducting definite educational campaigns to instruct the public with reference to preventive medicine or to inform the layman regarding the professional point of view, or for a combination of both purposes. Some states have progressed much farther than others but there is an increasing interest in sponsoring propaganda of this sort, and there is a very general recognition of the necessity for explaining medical matters to the public. Being best informed concerning the work in our own state, we may be excused for referring in some detail to what New Jersey is doing and for offering that as a basis of discussion, hoping that for our own sakes you will add much in the way of suggestion and recommendation.

Through the courtesy of Radio Station WPG, the Medical Society of New Jersey has the privilege of broadcasting a message every Friday evening for a 15 minute period commencing at 8:30 p. m. Each season these talks start off with an explanation of the construction and the aims and purposes of the state medical society, accompanied by an outline of the season's program. The President of the society usually delivers a Christmas or a New Year's message, wishing good health and happiness to the people of the state. For the other talks, topics are selected which call for public support in the line of disease prevention: Vaccination against smallpox; immunizing against diphtheria; prevention of colds, pneumonia, or heart disease; obliteration of focal infections; proper employment of exercise, rest, sunshine and fresh air for the prevention of sickness and the promotion of health. In so far as possible, we have such talks prepared by members of the state society whose opinions will be recognized as authoritative. The Editor has to fill in gaps and does so by choosing easy subjects or topics that may be treated in a general way and which do not require possession of special knowledge. Each message is of 1500 words length, and is given out in the name of the state medical society. If possible, the physician who writes the article broadcasts it, but if he is prevented from delivering his message personally, it is broadcast by the Editor or by his secretary; interest being concentrated on the message and not upon the speaker.

To add to the effectiveness of these radio messages, they are mimeographed and distributed to all of the important newspapers of the state—150 in round numbers—with a release date permitting publication coincident with the broadcasting. Not every paper uses the material, of course, but many of them do and among this number are some of the most important papers in the state—such as the Newark Evening News, Camden Courier and Atlantic City Daily Press. Now in the midst of the fourth year of this service to the public, we are convinced that the public is appreciative and that it is having a good effect from the organization point of view. Whether we shall continue the plan indefinitely is questionable. During the past

month, less than 2 weeks ago, announcement was made that Station WJZ will have a special medical period every Friday evening, that talks will be given by some of the "leading lights" of the profession, and that this program will be sponsored by E. R. Squibb and Company. That pharmaceutical company had the temerity to say, in the announcement referred to, that they are pioneers and that this will be the first public educational movement of the kind; a statement that was promptly challenged by submission to the company and the New York Times of evidence showing what the New Jersey Medical Society, the American Medical Association and other medical bodies have been doing for several years. Some of our county societies have put on radio programs at times; the Atlantic County Society did so through one winter, and the Passaic County Society (the city of Paterson) did so for a time. The larger radio stations reach a much larger number of possible listeners, but it is quite possible that local county or city programs, from stations that have a strong local support, may be equally as effective.

Our main reliance in New Jersey, for public education, is, however, of a different character. The state society has employed a full-time Field Secretary, whose chief function is to lecture before lay organizations—women's or men's clubs, public schools, literary or athletic associations—wherever she can secure an audience. The county societies, more particularly the women's auxiliaries to county societies, are useful in procuring engagements for her to speak. At the present moment she is one of the most important factors in our State-wide Antidiphtheria Campaign. Without doubt, this public speaking program, which is now in its fourth year, has helped materially to improve relations between our profession and the public. The Executive Secretary and the Field Secretary have been able to work in conjunction with the state and local boards of health, the state Parent-Teacher Association, the State Tuberculosis Association, and all other organizations attempting to do public welfare work. This has helped also in our relations with the state legislature, because that body is becoming aware of the fact that the physicians of the state are working constantly and in a variety of ways for the best interests of the public, and, consequently, legislators are more inclined to listen when the state society transmits a message favoring or condemning pending legislation.

(c) *Education in Relation to Legislation.* Careful watch is maintained over our state legislature and, immediately upon appearance of any bill having a medical bearing, a letter is sent to each assemblyman and to each senator, stating the position of the profession with reference to that bill and giving specific reasons why the profession desires the passage or the rejection of that bill. Lengthy argument is avoided, but the bill is dissected and cogent reasons presented why it should or should not become a part of the organic law. At the same time, all members of the Welfare Committee (our Public Relations Committee) of the state society are notified of the position taken and requested to follow up that action by a visit to the local assemblyman or the county representative in the state senate. If necessary, that is followed by similar instructions to the presidents and secretaries of county societies. We confess to much disappointment in our efforts to get action out of these officers, however. Our judgment is that, so far at least, the kind of letters described have been more potent than the asked-for personal contacts. With very rare exceptions, physicians, even those holding office in the county societies, will not take the trouble to exert whatever political influence they may possess; it has to be a grave emergency that will induce them to act. Here is certainly an opportunity for county societies to get in some good work, but we despair of their embracing it properly.

What has been said about methods of dealing with state legislation applies also to national questions. Protests against the Sheppard-Towner Act, for instance, given with our reasons for objecting, have been sent to each congressman and both senators from the state. We attempt to keep in touch with Dr. Woodward and to respond to his calls; and, just a few weeks ago, we spent a very pleasant evening with Drs. Hammond and Lawrence discussing these questions so that these 3 states might take the same action simultaneously; the suggestion for doing that, permit us to say, came from Dr. Lawrence.

(d) *Newspapers and Magazines.* While the State Society has been carrying on newspaper publicity of the type spoken of, one of our county societies has recently tackled the problem from another angle. The Bergen County Medical Society is publishing once a week, in one or more of the county papers, a paid advertisement, which "ad" consists of a brief dissertation on some medical topic of public interest; one week, it will be diphtheria immunization, another week, the prevention of influenza, etc. The plan is modeled more or less after what is known as the Toledo plan, we believe. We know too little yet about the effect it is having to predict whether it will become a permanent feature of that county society's work and whether it is adaptable as a suitable procedure for county societies in general. If we mistake not, Queens County, in New York State, is starting a similar movement. Under the title, "The Public, the Physician, and the Press", Dr. Louis R. Effler, Director of Education, Academy of Medicine, Toledo, Ohio, presents (Jour. Indiana State Med. Assoc. 22:13, Jan. 15, 1929) a very interesting outline of the plan he has employed, and his conclusions are worth quoting: "To fight, it is not always necessary actively to attack and belittle the cult and the quack. This often serves to advertise them more by making them 'martyrs' to the 'great medical trust'. We shall fight them best by establishing ourselves in the hearts of the public. To do this, we must educate the public in matters medical and thereby kindle a respect for orthodox medicine. We must let the public know what a noble heritage we have in medicine; its traditions hallowed by time, its sound principles, its safe and conservative policies, its triumphs, and in fact, all about it that is calculated to intrigue public interest and capture public confidence. The public must be taught to turn at all times to the Academies of Medicine throughout the country as bulwarks and tabernacles and citadels of medical truth."

Mr. W. N. Kueneman, News Editor of the Knoxville Journal, of Knoxville, Iowa, has a similar article (Jour. Iowa State Med. Soc., 19:12, January, 1929) under the title, "Medical Publicity from the Standpoint of the Layman", which is also deserving of your attention but too long to be quoted here today.

While on this subject of newspapers, we would like to direct attention to the general question of advertising, but this time with special reference to obnoxious medical advertisements. During De-

cember and January the country was threatened with an epidemic of influenza. At the very time when national, state and city boards of health were endeavoring to safeguard the public by warnings as to undue exposure and advice as to preventive measures, some patent medicine manufacturers had the audacity to attempt to capitalize the people's fear, and some of our best papers carried advertisements of a most ridiculous, and a very dangerous, character. We called public attention to this in one of our radio talks, as follows: "Can you imagine anything more dastardly than playing upon the fears and the ills of people during an epidemic of a dangerous disease; preying upon the ignorance and credulity of people, to sell medicines that possess no disease preventing power whatsoever and the use of which would only delay the securing of proper preventive or curative measures. Yet, in this day of civilization, in this enlightened country, that is exactly what these patent medicine vendors are doing. The 'ad' is a base deception, designed solely to sell the alleged remedy, and the advertiser would calmly wheedle your money from you by such deceptive statements and without any conscientious concern as to whether the medicine may kill or cure you."

Hoping, yet scarcely daring to believe, that something might be accomplished by addressing a complaint to the newspapers, we wrote to the Editor of the New York Times enclosing a copy of our radio talk, and directing his attention to one of the worst advertisements. We were more than gratified to receive a prompt response saying that the matter had been laid before the advertising manager with request for an explanation, and very soon the latter official wrote us a very reasonable letter. One of his explanations was, by the way, that he had sought information regarding this particular preparation and that a physician of standing had assured him that it was "harmless". Our answer to that was that the physician's answer was only meant to cover the point that the product probably would not of itself produce harmful results, but that the preparation is not harmless if its use prevents the individual from securing proper attention.

Whether or not our intervention in this matter has had any effect, we cannot say; we can say that we were treated decently by the paper and that the advertisement is not at present appearing in that publication. Here, it seems to us, is another excellent opportunity for county society work. Let the organization, through its officers or a carefully selected committee, supervise the advertising columns of county papers and seek to influence the character of medical advertisements admitted to the columns of such papers. We believe that a great deal of fraudulent, deceptive advertising can be suppressed by such means.

It is necessary to say in that connection, however, that we must first be sure that our own house is clean before we complain of our neighbors. If the National Association Journal, the State Society Journal, the Annual Meeting Program, the County Society Bulletin, or any other medical organization publication is carrying advertisements that will not stand the test of medical ethics, it will be folly to attack the lay papers and magazines. Dr. Frank C. Hammond has called attention to this, with special reference to county society bulletins, in a very excellent editorial in the January issue of the Pennsylvania Medical Journal, which need not be repeated here because you have probably all read it.

(e) *Lay Organizations.* To your relief, we have reached the last item on our list, that of the medical society's relationship to lay organizations dealing with medical problems. It is, in our opinion, the most important of all the problems confronting the profession at the moment, and it is one of such magnitude that its proper consideration would require a separate paper in itself. About all we can do here is to direct attention to some of its bearings upon the privileges and opportunities of the county societies and to suggest in generalizations what course the organization may pursue.

An editorial in the New York State Journal of Medicine of recent issue (29:30, Jan. 1, 1929) says: "The lay organizations have anticipated the doctors in recognizing the advantages and desirability of the practice of public health, and societies of public spirited citizens have entered those fields with the apathetic consent of the doctors. However, physicians have come to realize that if they are to maintain their position as the source of medical knowledge and practice, they must enter upon the practice of civic medicine. They cannot remain outside the field and still criticize those who are toiling there. They must enter the field and direct the workers and do their own share of the work."

That some county societies are following this advise is illustrated by a report from Nassau County (N. Y. State Jour. Med., 29:89, Jan. 15, 1929), which contains the following significant clause: "In general, we can make the definite statement that the medical society of the county of Nassau is assuming its rightful place as a dominating factor in the fields of public health and preventive medicine; lay groups and organizations are recognizing this fact and are turning to us with increasing frequency for advice, and we confidently expect that within a very short time we can be certain that no project in either of these fields will be undertaken by any group without the medical society's having guided and participated in the preparation and execution of these plans."

With the sentiments expressed in these 2 quotations, we are in perfect accord; indeed, we have been preaching that doctrine for some little time. We feel that the medical profession will do well to take an advanced position in this matter of educating and directing public opinion with regard to medical matters and in the direction and control of the lay medical movements through association and coöperation. It is our duty, as physicians, not to obstruct any movement, no matter from what source it emanates, that promises to aid in the diminution of disease or the alleviation of human suffering. It is the duty of the individual physician, and of groups of physicians combined into county and state societies, to assist in promoting measures designed to establish healthful living conditions and to prolong life. Let the county medical society enter into communion with these outside agencies and apply its special knowledge for the proper development of all efforts to rid the world of its troubles growing out of sickness and disease. The medical profession should welcome the aid of every organization and of every citizen, in its fight against disease. We need the help of laymen, especially of the intelligent and willing workers among them, and the lay groups need our help and advice in order to render the service which they are inspired to offer. Let us not wait to be invited, nor to be compelled, to join forces in this work; let us, rather, offer our assistance and endeavor to establish an effective coöperation of all elements interested in

the control and, when possible, the eradication, of disease. It should not be necessary to frighten us into action by holding up the bugaboo of "state medicine". Perhaps that does hover over us at the moment, with threatening mien. What of it? It will not descend upon us if we exhibit even a modicum of common sense. It is within our power to obviate the evils of state medicine by voluntarily giving the public all those benefits that are theoretically claimed for state medicine; and this can be done without any injury to the legitimate practice of medicine.

It is a sad commentary upon this so-called "civilization" of ours, that with all the knowledge we possess today, with all the facilities at hand, for entire eradication of certain diseases, we still have thousands of deaths annually from preventable diseases — smallpox, diphtheria, malaria, typhoid, puerperal fever—a shocking list—and we have mentioned but a few of the things that ought not to exist in this land. We have talked at considerable length about public education in medical matters but there is something to be said to the profession, and we say it with bated breath—that there is a crying need for more education within the profession, for teaching a higher sense of duty and a greater regard for the humanities on the part of a large percentage of our fellow practitioners. We are doing our best, probably, to deal with the ignorant and the incompetent among us, but are we doing our best to control the mercenary? Is it not a fact that commercialism has a very strong foothold within the sacred portals? "The Laborer is worthy of his hire"; most assuredly, but the man who stays his hand when by action he could save a human life, arrest an epidemic, or contribute in any degree to human betterment simply because he is not to be paid for such action, is unworthy the name of physician. It galls us whenever we hear doctors talk about preventive medicine or progressive clinics cutting down professional incomes; particularly does it aggravate us when they speak of self-sacrifice involved in obliterating diseases the treatment of which might bring in substantial financial returns. We heard a man high in the councils of the profession do that not very long ago. In one breath he proclaimed the everlasting glory that is ours for pointing the way to prevention of typhoid and yellow fever, and in the next breath gave vent to the fear that the profession would suffer financially as the result of such glorious deeds. The Antidiphtheria Campaigns in these 3 states have disclosed not a few members of the profession whose interest in earnings is greater than their interest in suppression of the disease. As a matter of fact, every physician should know that the medical profession has never yet lost a single dollar because of any of its contributions toward the betterment of mankind; all of the bread we ever cast upon the waters has been returned a thousandfold.

We are not advocating any radical action, but we think the medical profession needs a few strong and brave leaders, strong enough and brave enough to direct the profession to direct the public in the task of delivering the world from the dragon of disease.

Discussion

Dr. James E. Sadlier (Poughkeepsie, N. Y.): I was unaware that I was going to open this discussion upon Dr. Reik's very excellent paper, containing as it does so many points of vital importance with reference to what organized medicine can do. I am somewhat appalled, in fact, by the magnitude of the work that has been laid out by Dr. Reik in his most excellent paper.

Organized medicine has multiple functions. It has scarcely scratched the surface of what can be accomplished in the individual counties, and yet we find certain county medical societes and organizations so advanced in their particular lines of practical health and preventive medicine work that we wonder sometimes if the state organization is fully cognizant of all that is going on. I had a rather unique and startling experience recently. There is a county organization which, when I was president of the state society, I visited and was pleased with the apparent evidence of its activities. I insisted rather long and loudly upon the establishment of a county Public Relations Committee but heard of no definite action in that particular county. Recently, as Chairman of the Public Relations Committee of the state society, and in conjunction with several other officers of the state society, I visited that county and without making any big address I spoke rather decisively to several of the leading men in the county society. I was quite amazed a few days ago, on getting a survey of that county, to find indicated in a very detailed report what they were doing along the lines of public health and preventive medicine. I found out that we as a state society actually did not realize how very much that particular county had been doing. That survey will appear in the Journal of our state society reasonably soon. That society, perhaps, represents one that is grasping its particular field of usefulness, improving its opportunities and doing everything to elevate organized medicine which any county society can do at the present time.

Another county society which I recently visited with the idea of stimulating activity along the line of establishment of a Public Relations Committee, had an apathetic and desultory manner which indicated no unity of thought or action. This is a county society which has in its possession a definite fund for establishment of a hospital but yet, as a result of not having leaders who would push on to completion the project of so great importance, nothing is being done.

That brings me to the thought that has always seemed to me to be so important. County societies should not only have in their membership all the medical men in their district, but they have got to have one or more definite leaders who will push to the front the activities of that society. Desultory action by men who can conceive of their responsibility for attending meetings but who cannot conceive of any responsibility between meetings is of no practical use.

So, we have county societies of 2 kinds: That splendid uplifting type which is setting the pace and developing the proper standards in medicine; and the apathetic type which, to my mind, constitutes almost a menace to organized medicine. The county society that is not doing its duty is really a menace to organized medicine.

I shall speak to you more particularly, considering my present position as Chairman of the Public Relations Committee of the Medical Society of the State of New York, with reference to the activities of that committee. We feel that we must have a proper organization, and in order to get that we must have in each county a Public Relations Committee that is active and aggressive. We are succeeding reasonably well, but it is a slow process. It will take several years to activate our county societies along the line of

proper public relations but we feel that we are actually going forward. One of the things that is encouraging us perhaps more than anything else is the letters of inquiry we are receiving from various parts of the state with reference to what their attitude should be on this or that particular subject. We have a very interesting one at the present time from one of the very large rural counties which has no city within its borders. It has one of the best general hospitals in the state, a hospital developed distinctly as a one-man institution with a large and efficient force in association with him. That represents what one strong man can do in a county where he has a hospital developed almost as perfect as you would find some of the general hospitals in this great city. Yet that man with his broad vision has seen the handwriting on the wall and, realizing what may happen to that hospital and to that county from a medical standpoint when in the course of time he has to lay down the burden, he is much concerned. That is a subject which to my mind the Public Relations Committee of state societies should seriously consider. It should consider what may happen in these counties sparsely settled, remote and without proper hospital facilities. We have them in New York State. Perhaps you have them also in Pennsylvania and New Jersey.

Aside from what the Public Relations Committee and its organization must do in future years in each state, the thought which I expressed at the Atlantic City meeting I wish to reiterate now again, that there has been too much of the let-alone principle in regard to our county societies. Our state officers and committeemen have not appeared sufficiently often on the program of the county society. They have not coördinated and interlocked sufficiently and acquainted the county society with their activities. If we are to have a real development of our county society activities along the lines desired by the state society, it means that the state society through its officers and committeemen must take an active and very definite interest in each county society and see to it that the activities of the state society are carried out there in the best manner possible.

Dr. H. W. Albertson (Scranton, Pa.): I sort of feel that I am a "has-been", yet all of you who know me at all know that my sympathy and hearty coöperation are in this work. First, I want to compliment Dr. Reik on his very excellent paper, and also to compliment him on his knowledge of chassis, models and bodies.

I do not know what has been the custom with you regarding county programs nor what you have urged your members to do, but I have urged and am still urging that county societies develop their own men. It is a good thing occasionally to have some one from outside, the very best men in the country, to give the latest developments in medicine, surgery or pathology, but it is just twice as important to develop your own men to read papers and discuss matters. It has been my experience that the attendance is probably not quite so good when you do not have an outside speaker, but the educational value is many times greater.

Regarding the eligibility of physicians to county medical society membership: It is indeed a great question in my mind whom we should eliminate from our county medical societies. After many years' experience in this work I have come almost to the conclusion that there are men who perhaps have done questionable things in the profession and with whose character we are not altogether in sympathy, but who in many instances can be remoulded and made better and if they are brought into the profession they may be made to see the noble side of medicine. I have seen this happen many times.

Another thing Dr. Reik spoke of is "individualism". Let us all forget individualism in the great cause; "isms" of any kind should not enter into organized medicine. That was very well brought out by Dr. Reik; I simply want to emphasize it. It has been our custom in Pennsylvania to try to get all of the recognized schools of medicine into the state society, and I think we have accomplished this in a very large measure. There are still some counties that have their own homeopathic or eclectic societies but that is rather a minor thing and we pay little attention to it because most of their members belong also to our own state society.

There is one thing that I want to bring out which is in a way an innovation in Pennsylvania; it has just been going on this year. As you know, 18 months ago Dr. Theodore Appel, a Vice-President of the Medical Society of the State of Pennsylvania, was appointed Commissioner of Health for the State of Pennsylvania. Dr. Appel is a real "he-man". He has at heart the best interests of the medical profession as well as wanting to make a record for the Department of Health. He is now going about the state, in the 10 counties that have licensed midwives, and is laying a great deal of stress on the contagious diseases. His talk covers about 45 minutes, in which time he makes a comparison of the contagious diseases in that individual county with the state at large and with counties of a similar size. Now to my mind that is a back lash to the physician. It shows us what progress we have been making in the last few years, if any, and is one of the best inspirations I have known for some time. I hope he will continue this work from year to year. He also takes up the question of obstetrics from the standpoint of the midwife and of the general practitioner. I am mighty sorry to learn that according to statistics the obstretrics done by physicians is in some respects inferior to that done by midwives; and I believe they have made an honest effort in Pennsylvania to charge up against the midwife every case that she has been in to see and not charge it against the physician who has later seen the case. It bears out the statistics that Dr. Sadlier read in Albany last May. I believe New York has much the same proposition to consider.

One thing in Dr. Reik's paper that I want to speak about is the question of the county medical society doing something in legislative affairs. From the siege that we have recently had in Pennsylvania I want to tell you that you may advise your county societies that they must not expect to do a wonderful work in medical legislative affairs over night; we have tried that in Pennsylvania to our own sorrow. A campaign which is well planned and well developed will reap results; we are going through that just now. But overnight campaigns, unless in extreme emergencies, have no great value. You must be watchful of political conditions constantly.

We have in Pennsylvania a bill which prohibits newspapers from taking advertisements from fake physicians. That has practically driven out of Pennsylvania the so-called genito-urinary specialist, and has done a lot to clean up the bad smear upon the name of the medical profession caused by these quacks. I am in hearty sympathy with Dr. Reik's effort to clear up the advertising matter.

I sincerely believe that statutes are possible that would supervise just such conditions as this, because they have done much to help us clean up these conditions in Pennsylvania so far as fakirs are concerned.

Dr. E. R. Mulford (Burlington, N. J.): These most excellent papers of Dr. Lawrence, at our previous meeting in Atlantic City, and of Dr. Reik, our own Executive Secretary, today, have certainly delved deeply into the functions of the county medical society.

As the President of the New Jersey State Medical Society, I have been traveling around from county to county and I find that the missionary work that has been done by Drs. Reik and Morrison, and which was instituted by Dr. Donohoe some 5 or 6 years ago, is now beginning to bring forth much fruit. For instance, in one of the rural counties that was visited by these gentlemen 3 years ago there were only 2 members at the meeting. At our recent annual visitation to that same county I found a very actively working county organization, a membership of 100%, all the doctors within the county; there were 24 doctors present at the meeting, they had a very interesting discussion of 2 papers that were presented by members of their own organization, one on acute otitis media, the other on pneumonia, and every member participated in that discussion except one who was deaf and had not heard all of the papers. I feel that the work instituted by these pioneers in New Jersey is now bringing forth good fruit.

As to the scientific program, we feel that having papers by the local members and developing, as Dr. Albertson has said, the gold latent within our own bounds, is most helpful and that much has already been accomplished over in our state, for many of our county programs have been developed entirely by the local men. When visiting one of these organizations last year, the chairman told me he had been asked to prepare a paper for the annual meeting, but that he had never before written a paper nor spoken in public and did not believe he could possibly do it. We assured him that all he needed was confidence, and that fellow went home and prepared a splendid paper, a most interesting one on a live topic, and it aroused a lot of discussion that was very profitable. To reiterate, we feel that the papers and the scientific side of the program prepared by men within the county organization, occasionally having some outside man to bolster up the morale of the men, are most effectual.

We also feel that the social side of the county medical society is in need of development. Much has been accomplished by the establishment of our woman's auxilliary; especially when the auxiliary meets at the same time as the county medical society, for when the ladies come to the meetings the doctors are coming also. In one of the counties where considerable opposition to the auxiliary was encountered when our Executive Secretary first proposed that question, it was found at the first meeting after the formation of the auxiliary that they had 24 members present out of a total enrolment of 36; and they had a wonderful meeting at that time. We recently had a joint meeting in Burlington County sponsored by the women, and it was the most delightful I have ever attended in that county.

As to internal affairs, by adopting the program spoken of by your most efficient Dr. Lawrence, we feel that much has been accomplished within the county medical societies. At some meetings we have attended a great deal of time has been given over to bickerings of a small nature, such as methods of approach, lines of least resistance, what should be done, and we have urged these men to have an executive committee to take care of this part of the work. In nearly all of the counties this has now been accomplished. We are urging that when men in charge of the scientific sessions have produced a good meeting they be reappointed. Whether it is the best thing to have these chairmen succeed themselves year after year, I am not prepared to say; we have not yet had enough experience in New Jersey but we have found in 3 of the counties where the chairman of the program committee has succeeded himself for 3 years that the society is growing in usefulness and in numbers and we have felt that this is perhaps a good suggestion to follow.

Now as to "Public Relations": I feel that Dr. Reik has covered this ground so thoroughly today that I can add very little to what you have already heard; from Dr. Lawrence's most instructive paper last year and this splendid and helpful paper of Dr. Reik's, and the discussion they have brought out. It certainly is a fact that we medical men must be on our toes all of the time. In New York you have probably had a lot more experience with this subject of public relations than we have had in New Jersey, but with the mass of committees and the various welfare organizations that are at work, especially in the rural counties, and, to quote Dr. Sadlier, the apathetic interest that has been shown by our brethren, it seems to me that one of the great campaigns of education that we need to carry back to our county societies is for the formation of Public Relations Committees and the development of missionary work among the members.

Dr. Thomas G. Simonton (Pittsburgh, Pa.): Mr. Chairman: This is the second meeting I have attended of the Tristate Conference, and I have never anywhere listened to papers that were more constructive than Dr. Lawrence's and Dr. Reik's. They have opened up many points of discussion but they are all along constructive lines and cannot help but be beneficial to all of us in the 3 states.

With relation to legislative bodies and our organization, Dr. Reik wisely suggests putting our own house in order. The legislature in Pennsylvania put through a State Compensation Bill but practically ignored the physicians and surgeons, so the state society appointed a special committee, known as the "State Compensation Committee" in an effort to correct a lot of the evils that were embodied in that bill. On the train from Harrisburg to Pittsburgh there happened to be 3 members of the Compensation Board and discussion of this subject was brought up. They wanted to know what the doctors proposed doing toward a correction, and said they wanted to state there and then that if the Pennsylvania Medical Society had any idea of introducing a bill it would be wise to meet first with the entire Compensation Board. They said that the medical profession had no idea of the rottenness within its own ranks, and offered to give us the names of 55 doctors in one county alone, some of them surgeons of unusual reputation, who would be behind the bars if the facts concerning them were known. Now, if true, that is a serious matter. So, as Dr. Reik has said, perhaps we had better clean house and get the inside facts before we try to tackle the legislature.

As to medical men on lay welfare boards: Some of these welfare boards are in a measure running wild. It is a known fact that nurses' associations have taken the bit in their teeth and have at-

tempted to tell these welfare boards what is the right thing to do medically and what is not. The county society should adopt a plan in advance and then have one of its members elected on that welfare board. If we do not do this, we will be open to a lot of criticism and many things will be done by these lay bodies that will not stand the light of day from a medical standpoint.

I was very much interested in what Dr. Reik had to say about newspaper advertisements during the influenza epidemic. One of my recent influenza patients has charge of the advertising of one of the largest newspapers in Pittsburgh, and he told me that during December their revenue increased tremendously, due to the advertising of the various quacks; they had not sufficient space for all of it and in some cases could put the advertisement in only every other day.

I want to speak of another thing Dr. Reik did not mention in his paper, and that is advocating the appointment of a medical man in the Cabinet of the President of the United States. This matter has been up before but I think that now the time is ripe for it. The man who becomes President on March 4 is an orphan and he himself fed a million orphans. He also kept starvation from the door for other millions. He is a man whose heart is touched by the sufferings of humanity wherever he hears of it. We consider the time ripe now because of the humanitarian trend of President Hoover, and there is to be a concerted effort on the part of the American Medical Editors Association. The State Tuberculosis Society has adopted a resolution along that line, as well as the National Tuberculosis League, and they are expected to do considerable good in this matter at Washington. We all know that Hoover cannot appoint a man in his Cabinet without having Congress authorize it but if all the welfare societies and organizations of the country are interested and at work considerable pressure will be brought to bear. Did you ever stop to think that the banks have to be protected through Secretary Mellon, the laborers through the Secretary of Labor, the manufacturers through the Secretary of Commerce? Where does the medical profession come in? Every interest is protected except the medical profession and the health of the people. Now a nation is just as strong as the sum total of its citizens. If the health of the nation is impaired the strength of the nation is hindered, and if you want to have a strong and vigorous nation you must protect the health of the people.

These papers of Dr. Lawrence and Dr. Reik are most constructive because they have dealt with every phase of the county society, building it up in regard to its programs, its public health relations, its publicity, and if you can get the county organizations built up and working they will bring forth much good work. The fact of getting the minority to listen to the voice of the majority is very important also. It is hard to stir up some of the county societies but if we keep hammering in New York, New Jersey and Pennsylvania we will accomplish something worth while.

Dr. J. B. Morrison (Newark, N. J.): Mr. Chairman, I had hoped that inasmuch as New Jersey was so ably represented today by Dr. Reik, you would let me escape and that the discussion would be carried on by the representatives of New York and Pennsylvania. However, I will be glad to speak of some of these problems.

In the matter of eligibility of physicians still outside of the county medical societies, we find in New Jersey that out of 3700 physicians in the state we have a total membership of only 2400. Is it possible, or probable, that this 30% of physicians outside are all rascals and that we are pure gold? Why is it that county societies cannot appoint active, live committees to go after these men and try to find out what their point of view is; whether it is indifference, or opposition to organization, or bad feeling toward some of the members? The matter should be presented to them so that they may at least learn of the advantages accruing from membership in the county society. I believe that the provision in the by-laws of many county societies whereby a man may be blackballed by one vote is pernicious. Why should we refuse the rights of membership to a man because he is not acceptable to somebody personally? We need them not only in these legislative matters but in the big field in which we are now engaging —preventive medicine. In public relations work we shall need all these men. In the contacts we make with lay societies doing tuberculosis and other welfare work, where physicians must be represented and where they can convey their ideas to lay committees, we shall need all these men on the roster of the county society.

Dr. Reik made reference to the Grievance Committee. When you remodeled your law several years ago and made provision for a Grievance Committee, I think you took one of the most far-reaching steps that has ever been taken in organized medicine. It is a serious question in several states whether you can deprive a man, for anything less than criminal action, of his right to earn a livelihood. If he appeals to the courts, the probability is that he will get redress. If, however, laws can be formulated whereby the Grievance Committee can take up this whole matter and drive a man from the profession he disgraces, then we will have gone a long way. It seems to me that all of our state societies must come to incorporate some such feature as this in their legislative plans.

I want to stress again the value we feel we are deriving in New Jersey from employment of a Field Secretary. We are attacking this work from a different point of view from that of some of the other state societies that have an Executive Secretary; we are paying our Field Secretary a salary to carry to the public a message from the medical profession. What some of the county societies and some individual physicians are doing in a small way, we are having our Field Secretary do in a systematic, organized way. Efforts are being made to reach the public from every angle. Her points of contact have increased 200% in the past year and the influence that we are bringing to bear upon the public, in analyzing the claims of quacks and patent medicine vendors, in describing the benefits of preventive medicine, by a person who is not a doctor, appeals to them on every line of commonsense. Her contact has been very materially broadened through the activities of our woman's auxiliary. She has thus been given entrance to groups of people which we could probably never have reached otherwise. I earnestly recommend to all of you serious consideration of the Field Secretary's work.

Reference was also made to the effective legislative work of county societies. You know California, and Wisconsin, and perhaps New Jersey, have been the battlegrounds for legal recognition of the cults to a larger extent than any other states. We have tackled this problem from every point of view for 10 years, had battled in hearings at the State Capitol, and we were not gaining ground. But, through the activities of the Field

Secretary, and of Dr. Reik in the able way he has handled the matter by correspondence with legislators; and through the Welfare Committee Chairman seeking conferences with Senators and Assemblymen, giving a little dinner and talking matters over, not from the viewpoint of the medical profession but from the viewpoint of the layman; showing why our standards are high, what our claims are, and that we make no opposition to members of the cults if they will but measure up to educational standards, excellent effects are being realized. When a bill is introduced, Dr. Reik circularizes the assemblymen, and they tell us that they think very highly of those letters and use them for guidance. For several years past we have been quite successful in keeping these cults from securing further recognition.

Reference has been made to the work of the officers of our state society during the last 4 or 5 years increasing the interest of the county societies, and the excellent report of one of the societies was spoken of. That was a rural section, sparsely settled. The county society was practically dead. I tried 4 or 5 times to secure a meeting at which the state society officers could appear. They told me it was impossible, that there were less than 20 physicians in the county and that they did not pull together. I would not accept that and 2 years ago Dr. Reik and I, with the then President, went up to an arranged meeting and showed those members their lack of commonsense in consideration of their own problems. We showed them how much might accrue from actual fellowship, discussed the little things in which they were all interested, and tried to arouse their sense of pride and responsibility in organized medicine. The work that we put in there and carried on afterward resulted in the 100% meeting you have just heard of. They are now on the map because of the efforts of the state society officers to put them and keep them there. We have taken the councillors into the official family of the state society and expect our councillors to do a good deal of work in the future. You can so instruct your councillors that they will carry to the county societies the message you have to give and arouse some of that degree of interest that is so necessary and so helpful.

Mr. Stryker was good enough to come to a dinner in Hudson County several weeks ago and give us some important advice about the medical profession. One of the strong points he made was the loss of time from imbecile actions of some of the members of the county societies in bickering over small matters that do not amount to anything, when all the time there is a crying need for the members to do something big and broad and constructive. It is not the large counties that have this constructive work to do alone but in every society some man should be inspired to get busy and do something. Loyalty to leaders should be shown but we should all be doing something constructive, not only for the profession but for the community.

In the matter of advertising: Dr. Reik has made it pretty clear that we cannot expect newspapers to clean their sheets of advertising, that is not ethical according to standards set by the medical profession, when we do not attempt to do the same thing ourselves. We in New Jersey were not long ago guilty of an offense of that sort. We have always been rather proud of the fact that our official program for the Annual Meeting, and our exhibit at that meeting, have cleared the expenses of the convention. We have had a committee on arrangements which has been given a free hand about this. True, the Trustees advised several times that they should not accept any advertisements that did not measure up to the requirements of the A. M. A. Several times things got in that were not ethical but the committee's excuse was that the matter had been given over to an advertising agency and these things slipped in unwittingly. We have now clamped down on this entirely and no advertising matter will appear in our program, and no exhibit will appear on the floor, that is not reputable according to the standards of the American Medical Association; and we will do away entirely with the program advertising and the exhibit, features that have been so remunerative in the past, rather than tolerate such a thing in the future. There is no question but that we must keep a clean house ourselves.

Dr. Walter F. Donaldson (Pittsburgh, Pa.): At the meeting in Atlantic City I fear I was looked upon as a bit foolish when I insisted that this meeting's program should continue the discussion that was started there by Dr. Lawrence, but after having listened to this wonderful paper by Dr. Reik I feel like saying "I told you so"; and I think we are to be congratulated upon having 2 such men within our organization as Dr. Lawrence and Dr. Reik who can always be counted upon to bring us something worth while.

I shall discuss but one phase of the subject and that will be the membership in county medical societies. Some time ago I made an analysis in Pennsylvania, so far as I could, taking certain representative counties, of the proportion of membership and nonmembership and I came to the conclusion that a county medical society that averages 80% of the physicians within the county is doing good work. I found, of course, that there were county societies that had 100% and some that had but 60% membership, but if we could average 80% I felt that we had done very well, because I am sure that 10% of physicians, taken over any state, are not worthy of membership and the other 10% is made up of old and retired physicians. When I say retired I mean physicians who are no longer in active practice. It is astonishing the number of names that appear in the American Medical Directory of men who are no longer in practice, and yet are rather young men. So, when we make this criticism we should be sure of our facts and be satisfied with an average over the state of 80% membership.

As to the quality of that membership, Dr. Reik very kindly made reference to some previous efforts of mine in that direction and I want again to urge all the officers from New Jersey and New York present here today to give thought, followed up by action, to the proposal that the By-Laws of your state societies shall contain the requirement that every county medical society shall submit the names of its candidates for membership to the Biographic Department of the American Medical Association. It is a very simple matter. In Pennsylvania we prepared a form and an envelope, the latter addressed to the Biographic Department of the A. M. A., and supplied these to all the county societies. The names are filled in and sent to Dr. Camp's Department, in Chicago, for information as to the record of that candidate. As you know, it is absolutely complete from premedical days. In order that membership in county, state and national societies may be worthwhile, I want you to take back home with you this simple procedure of providing the county societies with these forms and envelopes.

There is one other comment I would like to

make regarding the use of the word "housecleaning" within the medical organization. I was a member of the Health Committee on the Chamber of Commerce not long ago and a layman made use of that term, said that he thought in the study of the high cost of medical care the medical organizations should themselves go through a housecleaning. I persuaded him to substitute the words that the medical organization should go through an *"economic introspection"*.

Dr. James N. Vander Veer (Albany, N. Y.): I had some notes in mind when I came down here but after having listened to Dr. Reik's wonderful paper I have incorporated several more that I beg to call to your attention. One question that comes up is, how can we urge unanimity in our county societies when so many physicians are at the present time so individualistic, and sometimes so cantankerous, that we cannot bring them to a common viewpoint? In our own county society, for instance, recently I attempted to introduce a resolution regarding a Public Relations Committee. I talked with our present officers and they said there was no use to have a Public Relations Committee, for they might delegate the relationships to the lay organizations. It so happened that 2 of the 4 officers are much interested in many of the lay organizations, to such a degree that I felt personally they could not divorce themselves from those organizations and see the viewpoint of the medical profession. They were the big men in the lay organizations.

I think only about 25% of the physicians in the State of New York are not members of county societies. In talking with various doctors you find there is sometimes objection to taking in a man because he is a common drunkard, a drug addict or some such reason why the majority of the men do not want him in the group. Dr. Donaldson has said he finds about the same percentage in Pennsylvania, 20%. We have about 16,000 registered physicians in the state and 12,000 members of county societies. I think the question is not so much whether we shall take in certain men as how shall we keep up enthusiasm after we get them in, and if one turns out to be worthless, how shall we get rid of him? I think we are afraid of expelling men from our county societies except for very flagrant criminal acts. In our Grievance Committee we think we have started a means of dealing with these people. For instance, the subject of advertising is covered in the Medical Act which we put through several years ago and which we believe is a fairly model act. If a physician gets into trouble a lay person can write and have him brought before the Grievance Committee, and that body decides whether punishment shall be imposed or whether he shall be discharged.

You gentlemen may have been acquainted with Governor Glynn, who was the owner of the Times-Union in Albany, a very prominent paper and very powerful in the State of New York. Dr. McDonald, who was at one time President of the State Society, was his personal physician and very near to him. One day as President of the county medical society, I took up with Mr. Glynn the question of advertising quack remedies; this was before Glynn was Governor. I told him I wanted to talk to him about some medical advertising he was carrying in his paper and showed him that they had some 65 advertisements of which about 58 were very objectionable to the medical profession. Glynn said he did not realize that, but they had been accepted because he had to make the paper pay. We found through the business manager that one man had a contract for 5 years for advertising in that paper, another had a contract for 1 year with the privilege of renewal, etc. Glynn said he would try to help if we would tell him which ones were most objectionable. I obtained from the A. M. A. certain data and a few of them were wiped out.

On the other hand, I want to give as an illustration a very flagrant advertisement that appeared in our Sunday Telegram. This paper has since been sold to Mr. Hearst. There appeared for a number of weeks a full-page advertisement of Dr. McCoy's Fast Way to Health. I happened to know the Editor and asked him whether he knew that the Telegram was carrying the advertisement of a very obnoxious man, who was not a physician although he was using the title of doctor, possibly with the legal privilege from some state in which he had obtained it. The editor was very much surprised, said he had thought the man was a very prominent doctor because of what he had said. Then I presented the data from the A. M. A., showing that he was a chiropractor, licensed in California, and had published a book full of errors that sold at 25 cents. McCoy had a contract for a year and a half, and the paper was getting a percentage of the sales of the book, which was inaccurate in almost every point. The editor said he was unacquainted with medical work and, to instruct him about the real things in medicine, I sent him subscriptions to the A. M. A. Journal, the State Journal and Hygeia. In about 4 months that advertisement disappeared, as well as some of the others. I was asked to suggest some one who could answer medical questions as the editor said he had covered this by referring to Hygeia, the State Journal and the A. M. A. I suggested that he send the questions to the county society and they would be answered by a man of undoubted reputation who might sign his name or that of a committee from the society. But that was as far as I got for the proprietor then began to see the inroads that were being made on his income. The editor said he had gone as far as he could and that now the commercial department would have to be educated, so I sent the journal subscriptions to the business manager. When the paper was sold recently it contained the fewest medical advertisements of any paper published in the city of Albany in many years. That is a question which I believe our state society should take up. We found that of about 400 newspapers published in the State of New York some 300 of them have the same stuff sent to them, and many of them are tied up in an advertising combination whereby certain sums of money are paid into this group and the advertisement prorated among the small county papers.

As to the Public Relations Committee, do we gain more by asking the lay organizations to come to us in our county, holding ourselves as the highest group in medical problems, or would we attract these people more readily by having our committee go to them? I think Dr. Sadler will bear me out in saying that we have found opposition on the part of some of the lay organizations. In our county we cannot get our lay organizations to deal with our Public Relations Committee, but I think if we said we would like to enlarge our committee and asked them to join us in formation of a new group, every lay organization would send a member to see what was going to happen. But when we sit still and ask them to come to us for advice they will not do it.

I want to ask whether you have seen this report

regarding the compensation investigation in New York? A Professor Rogers made some statements about physicians which came out in the Evening News of December 24: "Doctors hit by Rogers in a medical inquiry". It is a scathing denunciation of the practices of a good many physicians. I might tell you of an experience I had with the Compensation Committee to show you that the layman does not realize the viewpoint of the doctor. On the other hand, there are occasionally some excessive bills rendered and I believe it is the duty of the Compensation Commissioner to bring them before our Grievance Committee and not take it up with the doctor himself.

Dr. Sadlier, Dr. Trick, Dr. Lawrence and I were recently invited by the Educational Department of the state to attend a conference concerning enforcement of a law requiring medical attendance for every handicapped child. That law is on the books and they now have a man in the Educational Department who says he will enforce it. The Judge can appoint a physician and say how much he shall get for services rendered in the case. "We believe that the doctor should be paid a reasonable wage", he said, "and we want you doctors to settle how much the fees should be for these cases". The Educational Department is beginning to realize that the physician should have certain privileges that have heretofore been denied him. Our Commissioner of Health entered into the discussion and took the position that we should be paid for these cases where heretofore they have gone into the charity wards and been mishandled perhaps by incompetent physicians, and that we should undertake a new survey and advise as to what physicians should take care of them.

Dr. Frank C. Hammond (Philadelphia, Pa.): As to the question of admission of men who are eligible but who are not members of the county society, our Board of Trustees thought it would help by instructing the Publication Committee to send some copies of the Journal to those men. The question of expelling members reminds me of a situation we had in the Philadelphia County Society of a well known gentleman of excellent repute who established a school of neuropathy. They wondered what could be done about expelling him from the society, when the attorney for the society advised us to keep hands off, saying that if we dropped this man for establishing his school the chances were he would bring suit in the Common Pleas Court which would give him just the publicity he wanted. So he was continued in membership. We sold bonds for a new home for the society and he made application for a bond. We talked with him, tried to make him see the error of his ways, and asked him to resign from the county society, which he finally did.

Regarding the question of unethical advertising in the county society bulletins, our Publication Committee felt that the principle was wrong, that certain county societies were carrying in their columns unethical advertising when the state society Journal was living up to ethical requirements. This question was brought before the Board of Trustees, which body felt that it had no special jurisdiction in the matter but passed a resolution that it looked with disfavor upon such action and thought the matter should be placed before the editors of the bulletins of the various county societies, looking toward the elimination of that feature. We hope this will be properly corrected.

It seems to me that the state society needs the active coöperation of all its component county societies in order to fulfill its obligation to the people of the state and to its physicians. I think a live county society should be prepared to be the source from which the community derives its knowledge of things medical both as to prevention and cure of disease. It should encourage people to be examined periodically. It should teach the difference between impure and pure water, food, drugs, sanitation and habits. Through scientific sessions it should continue the education of its members. It seems to me that the officers of the county society should arrange to have a physician on every committee in the community dealing with health affairs; then medical guidance will be assured at the very inception of welfare projects. It will place the profession where it belongs—sponsor of the public health.

Dr. John A. Card (Poughkeepsie, N. Y.): Mr. Chairman, I am sure I very much appreciate the compliment that your are paying me to think for one moment that I could cope with the eloquence that I have heard here this morning. That is an impossibility. I can only say that I have been a very interested listener at all the discussions. This is the second meeting of this triumvirate that I have been able to attend, and I hope that I can attend many more.

If I were to attempt to discuss the paper and the extra subjects discussed today there is much that I would endorse and there is some that I would oppose, especially the reference made to the woman's auxiliary. However, since I am only an infant member of this organization I came to listen and not be heard.

Dr. William H. Ross (Brentwood, L. I.): I think if I were to talk very long I would probably strike a different note from anything that we have heard so far. In medical societies, you know, we are a little more inclined to tell of our successes than of our failures and it strikes me that everything said today is so good that it is beyond criticism. The thought comes to my mind, however, that there are a good many things that are different when we theorize about them than they really are practically. To illustrate, the medical society should take an interest in legislative matters but practically how much does it amount to? I think my own county society has about as good a reputation in legislative matters as any other, but upon whom does it depend? Dr. Lawrence criticizes the one-man county society in New York State but were it not for that one man a lot of them would not have the reputation they enjoy today. I have been Chairman of the Legislative Committee of my county society for about 20 years. We have a committee of 5, but as Chairman I have never during all those years consulted with anybody because they do not respond at all. Perhaps that accounts for the splendid working and I think we have attained quite a little reputation for our promptness. Now, I am Secretary of the Public Relations Committee, Dr. Sadlier submits questions to me and I consult everybody that I know of. He thinks we are tremendously active in getting the opinion of medical men, but you want to find out their viewpoint first and then you can anticipate them.

It was very interesting this morning to hear fee-splitting discussed. I think fee-splitting is a mild evil compared to many other things that medical men do. That seems to be the thing we hit upon just now and I would like to know how we are going to correct it. You know men criticize it very much after they get to be about 55 years old but not when they are 35. There are a lot of other

evils. Who knows the abortionists in the county? There is a suspicion at least about some of your very respected fellows.

In regard to compensation and ambulance chasing, the other day in my town there were 4 deaths from automobile accidents. These people were patients of mine. Sixteen hours after the accident a perfectly splendid and reputable doctor in my county brought a lawyer up there. What shall we do about things of that kind that are going on all the time? We must think a little harder about several things.

The county society can do just about what it desires if it takes time enough to plan a campaign. It is the opinions of just 2 or 3 in each society which largely direct things. If a thing is started in the right way, the others will follow along with the leaders. I live in a county in which every welfare and health organization is dominated by the physicians—and properly so. They look to the medical society for their help and information. We have recently organized a county health department the first to be organized in the State of New York. We are planning to take over every health activity in that county and we have behind us an irresistible public support. That has all come about because we were fortunate enough to think of things soon enough and get started. You must announce what you are going to do and then if the medical society will nourish the plans they will surely grow and the public will be with you. It is a very easy thing to direct the activities of a county medical society if you take time enough to enable the public and the doctors to grow up with it.

Everybody has praised Dr. Lawrence's paper and I endorse it with the rest of you. He spoke of one thing that does not seem to me to be practical when he says that every county society might study its record of prenatal work and maternity work and draw conclusions from that. It cannot be done. I have been President of the staff of one of the best organized small hospitals for the last 5 years, a staff of 32 with an average attendance of 29 at monthly meetings, and you could not get that staff to do that sort of thing.

Then the question of the relation of the staff to a county medical society: I think this organization should have settled that point. You left it entirely up in the air at your last meeting. Great men in the profession think one way, and others another way. Of course, personally I do not see why it does not supplement the county society. I would like to have an opportunity later to make some practical suggestions to increase the efficiency of this conference.

Mr. Lloyd Stryker (New York City): I am enormously interested in these conferences and greatly instructed by them. I suppose that I have as good an observation post to see your profession in action as any other layman in the country. It would be very easy for me to come to any gathering of doctors and make a speech about the wonderful qualities of the profession. Yours is a great profession. It is humanitarian. It is unselfish. But that is a speech that I shall save for the 12 men in the jury box. When I am talking here among doctors, however, I feel more like stressing the other side of it. I am glad to hear that I did not make enemies of my friends at the Hudson County meeting recently for I told them what I thought, right from the shoulder.

As I look at this whole situation the problems confronting the medical and legal professions seem to be very similar. It seems to me that the whole thing goes much deeper than we often stop to consider. All these things which we discuss, the question of making the county societies more efficient and more coöperative, go down really through the whole trend of our civilization, for we are living in a state of greater change than any generation that has preceded us in the history of the United States. We are in an economic revolution. The whole trend is toward group action, consolidation, accumulations of power and authority. We notice that, in our own profession of the law. A very brilliant lawyer, Editor of the New York Law Journal, recently wrote an article entitled "Fewer and Better Lawyers". A long time ago it was the principal activity of some of the best lawyers to examine titles, but that is now taken over by title companies. But that took from some lawyers an enormous field of practice. Then the trust companies came along. Formerly all estates were settled by lawyers, either as executors or counsel; now this is done by the trust departments of banks. So we find that on every side business groups, corporations are invading the domain of the individual. You should not be surprised to find that same trend in the medical profession. You find medical centers, clinics, and in some counties we are finding the health demonstrations making inroads on the individual doctor, and we must try to analyze and understand it and govern ourselves accordingly rather than throw up our hands about it. In the old days they traveled in a stage coach but today there are buses and railroads. The trend is more and more away from the individual doctor and toward groups of physicians. It seems to me that what the medical and legal professions must do about that is to show the public the fact, if it be a fact, that despite these things, after all, the human equation cannot be ignored, and no matter how we consider these groups of railroads, banks, and accumulations of capital and power, the individual must be reckoned with. I do not care what your hospitals or medical centers are, if I am going to have my gall-bladder or appendix out I want a human being to do it with 2 hands, a brain and a heart.

This whole question confronting the professions is one that would tax the ingenuity and the skill of a statesman. It would take a much wiser man than I to attempt to tell you the correct remedy but it seems to me that despite this suppression of the individual, this group power stamping and ironing out and stifling the individual, the time will never come when the individual man in the profession will not have to be reckoned with.

Speaking of trust companies, some of their lawyers have proved themselves to be crooked, fugitives from justice, but that does not mean that all lawyers are crooks. You go to a trust company and you get the individual service of some obscure clerk who probably would not have the knowledge or energy to conduct his own office. I think what must be driven into the public mind is the fact that despite all these changes in our economic life, the power and ability and usefulness of the individual must be conserved and developed and protected, and that will be a great contribution.

Now the worst possible result of these group movements toward state medicine would not be the effect upon the doctors, but upon the public, because the lay public has got to be brought to understand that when a man is sick or needs an operation, or when his wife is going to have a baby and there may be a breech delivery or a cesarean section, he needs a doctor of ability, an obstetrician of experience, but above everything

else he wants a man whom he can trust, with a conscience and a heart and sympathy; not some impersonal thing behind a grating who will sell him a ticket, but a scientific medical man. In the last analysis, if a man is facing the electric chair or the jail he wants a lawyer that understands his rights and one whom he can trust. That is what the individual patient or client wants. Stamp out the individual and the public has lost just that much. That is something for you to understand and attempt to show the public.

I like you so much as doctors that I think I can safely discuss your faults with you. You have a great many faults in the medical profession that you could so easily correct and that if corrected would help you so much. One of those faults is your failure to examine the situation as you would make a differential diagnosis, then find the prescription and carry the treatment through. One thing the medical profession is lacking in, is leadership. I agree thoroughly with what Dr. Ross said about the ability to organize a county society or any other group of men. In my youth I was a politician in a small way, a Republican district leader on the west side, and I learned that it is the easiest thing in the world to lead men if you handle them right. The way to get a group of men behind you is to first get an idea that will stand up under cross examination. If it is no good, drop it. If it is really good, talk to the men about it until they really think it is their idea. If you have not told anybody about it until the time of the meeting half the crowd will be opposed to it, but if you have seen several of those men before the meeting and talked with them it will have their support. There is a great potential leadership in the profession but there is little enough leadership employed, and the same is even more true of the legal profession. Until our professions can develop this type of leader who understands these trends, whose heart is not only with you but with the public, who really grasps what the character of the practice of medicine is, we will not get far. The fact of the matter is, and you all know it, that you will go to many medical meetings, have a nice time, meet a lot of friends, discuss these problems where everybody seems united and wants to do something about them, and then you say good-bye until the next meeting. You cannot tackle all these problems at once. You would be doing well if you could select one or two concise, concrete, active programs of a simple character and concentrate on them.

This "Medical Practice Act" is not the greatest law in the world; it has some faults, but I think it was the best law you could get through the New York Legislature and is in many respects a forward piece of legislation. It was difficult to get it through and yet you wonder why anybody opposed it. You need some leaders but you also need followers, who are fighters. Make them generals where you can but do not make a private a general where there is not the capacity to be a general. If one doctor has an idea, urge it and do all you can to persuade his colleagues that it should be done, but if they, presumably as honest as he, are against it you should teach your minorities to play the game, join the majority and get behind the movement. That Medical Practice Act went through after much discussion, correspondence, many conferences and amendments. Once you come before the public all bickerings and differences should be forgotten and you should present a united front. There is a little too much proneness to discuss your troubles in the public press.

We have talked about this fee-splitting but that is not the greatest evil that confronts you. It does not help much to simply discuss it and bring it into the daily newspapers. One of the great problems of the profession is the economic problem. Personally, I have always thought I would like to practice law back in Cicero's time where they had their clients whom they defended in the courts for nothing; they were ministers of justice. It would be fine to take only the cases you thought were just and not have to search for the justice of it with a microscope. I might not be so keen about it in this modern civilization to be put on a salary basis and told just what I could do by the state. I think I would rather now take my chances as an individual. Most doctors have in early youth a terrific economic struggle. If there are not enough patients to go around there should be fewer doctors. Society doesn't owe the lawyer nor the doctor a living. Theoretically, my profession is there to serve the cause of justice. Yours, is to defend against the disease that flesh is heir to. Those are wonderful callings but until somehow only the men are allowed to become lawyers and doctors who through heredity or training or acquired characteristics have at least a potential grasp on what the sacred relationship means between the patient and himself, eliminating those men who can never grasp those concepts, you will not have the confidence of the community. I see some of those men in action. You would be surprised at the indifference that is displayed by some of your colleagues toward their patients. I can't tell you how many times I have heard of a doctor operating without authority for it, and making an excessive charge. I suppose we have ideals and would like to live up to them. But, as a matter of fact, we are human beings living in a world with imperfect clients and patients and we are sometimes dragged down by the people whom we serve. There would not be abortionists if there were not people who wanted abortions. But we should lead the public rather than follow in respect to ethics.

I wish that I could say something definitely, affirmatively helpful and constructive to a body of men that I so thoroughly believe in, many of whom are my warm personal friends, many of whom are doing wonderful things that go unheralded and unsung, marvelous works of charity. I would like to do something that would honestly help the medical profession. I would first think of leadership, and second united action and better understanding. Men will always follow a real leader.

I have spoken and written of individualism. It was commented on favorably and adversely. Individualism should be preserved and maintained and conserved. It is the best thing you have got. Do not let them steam-roller you out of existence. Do not let them take away your independence to make your own diagnosis, to believe in yourself, to be a captain of your own soul, but if the men who believe in those doctrines are so narrow-minded or narrow-visioned as to feel that they must suppress their individualism and coöperate with the others, individualism itself will be stamped out by these various groups of state medicine and other things that confront us.

Dr. Joseph S. Lawrence (Albany, N. Y.): I know that I should most humbly beg the indulgence of these good friends of mine for having so lightly scratched the surface of so far-reaching

and deep a problem as this. I touched upon many things and treated none of them as they deserved, but left it to Dr. Reik to continue the paper, which after all has proved to be *the* paper on the subject of county societies.

I feel most deeply that this is one of the most important subjects that any medical society can undertake to study and discuss. I am more than impressed with the unanimity of opinion on this problem in these 3 states. There is no doubt that the county society is recognized as a unit and that it still admits of a lot of study and development before it attains the position that we feel it should have, both politically and scientifically. I find myself agreeing with so much that has been said by Dr. Reik and the others on this subject that I have not very much to discuss but I do appreciate the opportunity.

In the first place, I would like to endorse most heartily the suggestion Dr. Reik made with regard to the legislative value of every member in the county society. He may be inconspicuous, but the Assemblyman from his district does know something about him and if he doesn't know what the aims of the state society or the individual county society are in regard to legislation I believe the chances are that he will give the wrong impression to his Assemblyman with regard to the medical attitude on certain problems. It is important to get in touch with that physician, give him the full outline of the problem and persuade him to take the explanation to the Senator or Assemblyman and set him right. I know there is great value in that sort of procedure. I know that is an ideal but we can approach it, at least, and if we do not have an ideal to aim at we will not get very far. County societies can do a great deal more for the individual physician than they are doing. In my experience I cannot think of a particular county society that is ideal on that score, and I am including the society to which I belong. We are not making any very great effort to educate every individual in the society. Individually, perhaps we are trying to do something but as an organization there is not sufficient effort being made along this line. We cannot expect to get intelligent, coöperative, progressive action from our own men unless they know what we are trying to accomplish.

We have exactly the same point of view, but from a different angle, as that of the Health Demonstration people. They sit for hours with their clerks working out problems and then they lay it before the public. The only criticism I make about it is that they then assume the public is familiar with all the information they have and should assume the same attitude they do.

Talking about the county societies does not benefit the man in the county society. We will go away with a more developed idea of the functions of the county society, but will that help the man at home? We must develop a way to reach the individual. If our journals are not read, then we must find some other method. We are speaking now of our failures. We cannot continue working without the coöperation of the individual constituents. The voter in the ward is sought out individually and pains taken to make him understand how he should vote on a question. The Metropolitan Life Insurance Company spends millions making its individual policy holder familiar with its aims. The individual worker is instructed to carry the message to the individual policy holder and in that way they get concerted action and coöperation. We must develop that. We cannot say we are doing our duty as yet on that score. I appreciate the difficulty that exists in carrying this information under our present organization and with the means of our disposal. The Metropolitan Life has millions to spend in this way. The political organizations have thousands to spend in educating their individuals. We do not have this money but, nevertheless, we can never expect to have as efficient an organization as they have without some effort toward educating the individual. We will either have to fail or else find a way of getting the message to each member.

With regard to Mr. Stryker's suggestion about housecleaning or fee-splitting, that is a problem that is not generally understood. I had a 3-page letter yesterday from a man who asked what this bill was in the Senate about ambulance chasing. He said if they put in a bill against fee-splitting I can say something. He told of men attempting to do operations simply because they are in league with the clinician and they share the responsibility. He said "Why should not the clinician get something out of this?" Dr. H ..... suggested that the clinician raise his fees for clinical diagnosis to a point similar to that of the surgeon for operating. That was the only suggestion as a cure for this condition that I have heard. You cannot hope to cure it morally. Men simply will not assume any moral responsibility for this until they are brought into the associations of the county society. The man who is doing this sort of thing is usually not in the county society.

This same man spoke of abortion. The Birth Control people will likely get through the legislature this year, or very soon, contraceptive legislation as they have outlined it. Our House of Delegates voted 2 years ago to take a position on this question but finally left it as a matter beyond them. If contraception is legally provided for, then therapeutic abortions will become a problem that will be definitely up to us to be decided upon. Of course, therapeutic abortion is done now but not in the wide sense that it will be done then.

With reference to giving publicity to what we are doing, as mentioned by Dr. Ross and Mr. Stryker, I think that it is absolutely essential that we should consider a method of giving public expression to our state societies' opinions upon matters that are before the public for decision and we should so direct our county societies. The lay agencies, the state departments of health, are giving public expression to their opinions, and after all from a survey made in New York state only about 5% of the average physician's practice comes in the field of communicable diseases. So we are allowing those people to make public expression for us in the things we should really be concerned about. The advantages of that are readily to be seen. When we took up the anti-diphtheria campaign it immediately went all over the state. Physicians everywhere joined in it—not immediately, but when they did understand it they worked enthusiastically for it.

Again, may I emphasize the point in Dr. Reik's paper with reference to the fact that we do owe it to ourselves and to the individual members of our county societies to use more effective means of educating them or informing them what the larger organization stands for and is aiming to secure. If we allow the county societies to simply have their meetings monthly, quarterly or annually, listening to scientific papers, but give them no actual opportunity individually to discuss the real economic problems of medicine, we are not

accomplishing all that we should with regard to those county societies.

Dr. Harry R. Trick (Buffalo, N. Y.): Although I am never quite sure as to the propriety of a chairman entering into the discussion, I would like to say a few words. (Upon motion, Dr. Mulford took the chair.)

I have been privileged to attend several of these meetings and have enjoyed them very much but I have felt that we do not get very much to take back to our various state societies. We do not seem to arrive at anything very tangible. We are apt to wander all over the map and we get so many ideas that they are more confusing than instructive. I feel, as Mr. Stryker said, that a friend is one who can tell us of our faults. As I understand it, these last 2 sessions were designed to consider the county society and its efficiency. That has to do, of course, primarily with membership. It has been said several times today that many men are not eligible. When do they become ineligible? We must credit our colleagues with the similar ideals that prompted us to take up the study of medicine, but I do not recall that anybody took it upon himself to tell me that there was such a thing as organized medicine when I was a student and about to go into practice. Therefore, something happens to these young men after they are permitted to graduate and I think that our responsibility begins way back there. We have lost contact with medical schools. Perhaps when the education of prospective medical students was put in the hands of state officials we lost something. Those men who were privileged to grow under preceptors, for instance, had these various economic ideas explained to them and they started off on the right foot, so to speak. I have suggested that we might see that the various medical schools have a real chair of medical economics. If they haven't anybody in their group who can teach it, we can take any number of men from our society who can supply the lack. Students should be told what these vast aims are, what our relation toward them should be, and above all that these young men should look to us, as they look to older doctors in the professional line, to help them solve their economic problems, which are the basis of their ineligibility. Perhaps they were permitted to make a poor selection of a location for starting practice, sat there and waited for practice, and finally some one came along with a proposition that they were not able to resist. It was not cupidity but necessity, and we are to blame somewhat. I am not so sure but that sort of thing might be called to the attention of our House of Delegates, to see that the organized medicine of our state should have the curricula of the various schools modified along such lines as this. In that way we might have these young men looking forward to the time when they might join our body rather than being urged and pulled in when they do not know what it is all about. I am sure if they were kindly instructed about these problems there would be much less need for discipline. We cannot take care of all of them, of course. There will probably be a few unworthy ones slip in.

Another point—what to do with these lay bodies? Dr. Vander Veer used my words. My idea, however, was that we might invite these representatives to meet with us as ex-officio members of our committees. In that way we would retain the leadership; and my contact with these organizations has led me to feel that they are rather open to such opportunities and would take such suggestions very kindly.

That idea of Dr. Donaldson's with regard to the names of candidates being sent to the Biographic Department of the A. M. A. should be taken up seriously. But the thing that I had hoped we might do was to arrive at some concrete disposition of the subject so far as we have gone.

Dr. Henry O. Reik (Atlantic City, N. J.): First I want to express my appreciation of the way in which you have received and discussed my paper.

I think it was Dr. Albertson who spoke of the compensation laws and some of the difficulties that have arisen therefrom. That same thing arises in New Jersey. One of the first things I encountered was that the Manufacturers' Association met in Atlantic City, after the law had been in effect for a short time, and made the complaint that it had been promised if the bill were adopted they would be rid of the shyster lawyers. They said that is true, but the greedy doctor has been substituted. I went to the Commissioner of Labor, himself a physician, about refuting that statement, and he advised us to go slow because the man who made that speech possibly had considerable ammunition in his basket. Dr. McBride has brought about a much better feeling among the physicians and employers and manufacturers because he has been in a position to judge the honesty of the people and has shown, to our shame more than once, that some physicians do not appreciate what that bill meant. Before that time they did a tremendous amount of work and did not get paid for it. Immediately it was passed they were paid, and they then proceeded to put in enormous claims, some outrageous bills.

I am sorry that Mr. Stryker was not present when most of my paper was read, because I got some of the suggestions from him last Saturday night. I did close my paper with a strong plea for brave leaders, men who will tell the state society what the true situation is and demand a show-down by the profession. With regard to this question of fee-splitting, is it the county society's duty to supervise its members, or shall the state society try to settle the question? In the smaller group the closer relationship of members might make the difficulties greater. Even in the state society it will take a brave man to do it, but all our talk is not getting us far, and will not.

Dr. Ross is, I think, wrong in his statement that you do not hear anything about the question of fee-splitting until after a doctor has passed fifty. It has been my experience to have heard more criticism from the young men than from the older men about this. I happen to have been a teacher up until a few years ago and I know that when the young men first run up against that proposition they are shocked. Having been taught a certain amount of professional ethics, they are surprised to find patients being sent to one doctor and the fees being divided. It is up to the older men to settle these disputed questions within the society and in that way encourage the young man to take his place properly. The suggestion as to whether these Tristate Conferences get us anywhere: I assure you they *have* gotten us somewhere. Remember it was not the intention of these Conferences that we should meet here, formulate a program and go back to the state societies and force it upon them. This is truly a *conference* where the leading men come to discuss these matters. Sometimes we have

taken specific action; where opinion was definite and unanimous. We go back home and think over the things that have been discussed here and one state after another begins to take action. You would be surprised to learn by a review of the records, how much good has actually come from these conferences.

I have found it quite worth while to be here today if for no other reason than to have gotten that expression, "economic introspection". That one phrase pays me for coming, and I think Dr. Donaldson is probably right about it. He also answered my question about the membership; 20% of the outsiders are probably not entitled to or do not want membership.

Another good thing that came out of this conference today is in regard to that By-Law in the Pennsylvania State Society about referring names of candidates to the Biographic Department of the A. M. A. That is already on its way to New Jersey, for Dr. Morrison is on the Committee for Revision of the By-Laws, and as I saw him making note of that suggestion, you may be sure that is going through.

As to Dr. Simonton's suggestion, I think we can look forward to having a medical man in the next Cabinet. The best playmate that Herbert Hoover had was Ray L. Wilbur and he has probably been selected for Secretaryship of the Interior; which gives us a very good hold on the Cabinet. I do not believe we will get a medical department at this time to handle these problems but we can as medical men have some influence there at any rate.

My paper dealt mainly with the faults of the profession. I think our meeting to hear a scientific paper read, have a good time, etc., is well in its way but what we need most at the present time is a discussion of these real serious questions.

As to the lay organizations, I would suggest that instead of inviting a delegate to come to you, ask if you may call upon them. I remember when there was some oppostion, years ago, on the part of doctors to the public tuberculosis campaign, Dr. Osler said, "Why not get membership on that committee? One good doctor can guide the whole proposition". I have since seen that happen in a number of instances. It is not necessary that we should have a majority membership in the Red Cross or Tuberculosis League, but if we have one or two good men in the society, and especially on the Board of Directors we can direct their work. They want us there. But do not ask them to send delegates to us. They will receive us, I am sure, if we proceed diplomatically.

As to "state medicine", personally, I do not fear it. I am almost willing to invite it because the term itself is not to me a bug-bear. It has, as Mr. Stryker has pointed out, some possible disadvantages. I am a believer in States' Rights, individual action, etc., but I cannot conceive that state control of medicine with paid employees would be much worse than we have today. The stranger coming into New York today who needs a good doctor or lawyer and who does not know the local situation has about 1 chance in 50 of getting a good doctor or lawyer. I was in the army and in France associated with a Base Hospital which did not have supermen in it. It was a staff of 35 physicians of average caliber. As I can say of them, I think it may be said of the whole medical service in the army, that they rendered better service there than we have ever rendered as civilian doctors. In that Base Hospital where 8000 patients went through, some of the worst wounded from the Argonne district, there were only 8 deaths; a mortality of 1%. I think even the Johns Hopkins Hospital would be proud of a record like that. I was an idealist and thought we would return home and practice medicine on a different basis after that experience. The reason we had such success was that when a doctor went to the bedside of a patient he found out whether it was a wounded or sick man, tried to make the diagnosis and administer treatment; he could call on any one of the other 35 doctors for examinations, and the whole institution was centered on getting that man well and back into active service; and there was no question whether we would be paid for it or not. Everything was centered on rendering useful medical service. Now if we can get state medicine on some such basis, it would be better than we have ever had from individualistic medicine. Of course, I realize that state medicine under our present political system would bring in the political doctor. But we have got him now. He is only practicing now without any supervision and I am not at all sure that state medicine would not be an improvement. At any rate, I am not afraid to try it. But, I would rather see happen something like Joseph Collins has pointed out; group practice centered on the point of rendering the best possible service.

The question of fees is becoming a serious one. Recently I called a specialist in New York and told him I was referring a patient to him and told him what the man was earning. Any layman could have diagnosed the nasal sinus condition. The patient told me 3 days later that he had been sent to an x-ray specialist, had paid $25 for pictures, and had not yet seen the doctor for diagnosis. I think we might well take up some of those problems and discuss them in the medical society.

Dr. Morrison: We are too close to the World War to know who was responsible for it or who has won it. Perhaps 50 years from now, when the complete history of that war is written, the public will be given an entirely different view than that entertained by those of us around this table.

It was my pleasure to report to the Conference of Secretaries at Chicago the origin, the scope and the result of this Tristate Medical Conference. I have been attending those A. M. A. meetings for the last 6 years and I have never seen a speaker listened to with more rapt attention than I was when I outlined to them the work that we were doing and the things that we had started. When I was through, Secretary West told me that with all the mass of material coming to his desk to be read and classified, he read with marked interest every word of the transactions of this Tristate Conference and he suggested the formation of similar groups all over the United States. Now, we question what our accomplishments are. We did not set out to accomplish certain direct formative things that we could take back to our state medical societies. Our idea was to bring the officers of the 3 state societies together and talk over problems that may be of interest to the entire medical profession, especially to this group representing 25% of the profession in the Union, but also to the entire group who listen and read the results of this conference. We are too close to it now to see what the results are, but so far as New Jersey is concerned, out of this conference grew our law for control of private hospitals; out of the meeting in Pennsylvania 3 years ago, when Commissioner McBride discussed the Com-

pensation Act, grew the bill that Dr. Reik and Dr. Lawrence have referred to for the compensation of physicians; out of the last session held in this city grew the model expert testimony act now before the New Jersey Legislature; the last 2 sessions have been devoted to the county societies and out of this will come a great deal of benefit to the members of societies that read our transactions. We are accomplishing very definite and very real results from this organization.

I hope that in the near future 2 conferences will be given over entirely to the subject of public relations. The medical profession today is outreaching by leaps and bounds the concept of medicine that our forefathers had, and if we are to maintain the respect and confidence of the public we must give to them our ideas so that they will be acceptable and we must show them our heartfelt interest in everything pertaining to public health and public relations in the broadest possible sense. We must go to our various societies and individual organizations and try to imbue all of them with the same active sense of coöperation. It is in groups like these that we can hope to secure results and I feel if you will suspend judgment for 5 or 6 years you will find the workings of this conference one of the most important things in organized medicine.

Dr. Vander Veer: I thought it might be well if we took into consideration sometime that the delegates elected to the A. M. A. from each state might gather with the Tristate Conference and listen to these discussions.

Dr. Trick: Each of us has to report back to our House of Delegates in regard to this Tristate Conference and I hoped that we might present the thing in a similar way with the idea of being able to continue if it seems desirable to do so. I have heard considerable discussion with regard to the advisability of it and thought we had better discuss this today.

Dr. Ross: I have no destructive criticism to offer at all. I have attended only 1 of the conferences previously but have read every word that has been published of all the conferences held. As to preparation of the work of these conferences, now, we had today a paper outlining the subjects that have come before the meeting; if that paper had been previously sent to each member who was to be here he could have been better prepared for thoughtful discussion. Standing on the outside, I think the discussion today has been desultory. We have missed some of the points and have gone quite far afield, and evidently the men present were not prepared to discuss them. To that extent it was a talkfest. That does not say one single word against the magnificent and splendid results that can come about. In the future, if the subject can be prepared as we had it prepared today and a copy of the paper sent in advance to each one that he might prepare himself for practical discussion of a certain feature I think it would be an improvement. If we are to get anywhere we must take back to our state societies and present to the House of Delegates these ideas and then give to the county societies the conclusions that we have reached. In our present methods we are not reaching the membership of the state societies very rapidly. I am not aware that the results of this conference have entered into the programs to any extent in the meetings in New York State. I have followed the programs of the district branches and attended half of them this year and nothing that the Tristate Conference has brought up has been actually presented at those particular meetings. Why should it not have been? Why should not the conclusions have been presented? I am impressed with the fact that we take up too many subjects. Two or three subject could be put through. If they were announced we could keep them alive and nourished and give them time to grow up so that the profession could grow into the ideas that we present. What can I take back to my county society this year, or to the House of Delegates of the New York State Medical Society? Would not I have some difficulty in picking out the things that were answered yes or no today. Mr. Stryker made a wonderful suggestion, that we have not made a quite definite diagnosis of what is wrong. They are missionary things, but what is the practical application of it just now? That is the impressive thing that I want to say.

One other thing: My discussion of fee-splitting is entirely one of observation. I have never had a personal experience; I have never received a fee in my life for referring a case to anybody, and would not know that fee-splitting existed if I did not know it from some other sources. Therefore, when I made my remark about the older men talking against it, that was based upon actual observation. One of the men talking most strenuously today in New York against fee-splitting, 20 years ago sent fees to 3 men for sending cases to him.

Please do not let anything that I have said be a criticism of the Tristate Conference.

Dr. Donaldson: I have thought it a good plan if the presidents of several county societies in Pennsylvania might be invited to these conferences. Could such men be invited?

Dr. Reik: The invitations have been restricted heretofore to the presidents, presidents-elect, secretaries of the state societies, and editors of the journals. Last year we added the ex-presidents. It is possible to expand further if you find it desirable.

Dr. Donaldson: Personally I haven't the slightest doubt that much good comes from every one of these conferences because I know I am constantly trying to apply the ideas that I get here. It is a very hopeful situation to me.

Dr. Mulford: The conferences have been very inspiring to the New Jersey people.

Dr. Trick: Personally, I have taken a good deal home with me each time we have met and the meetings have been most enjoyable, but I wondered if I was scattering the seed as I should. I don't know how to do it, evidently, except as we are all perhaps doing it in some individual and tangible way.

The invitation extended by Dr. Simonton to hold the next meeting in Pittsburgh early in May was accepted.

Adjournment at 4:30 p. m.

Henry O. Reik, M.D.,
Secretary.

EX-PRESIDENT GREEN HONORED

Retirement of Dr. James S. Green from active service on the staff of the Elizabeth General Hospital after 40 years' service was observed at a dinner in his honor Saturday, March 9, at the Winfield Scott Hotel, Elizabeth, N. J. Sixty members of the medical staff of the hospital gathered to pay him homage.

Dr. S. T. Quinn was toastmaster and presented Dr. Green with a watch and chain, a tribute

from the other members of the hospital staff.

The speakers were Dr. Charles H. Schlichter and Dr. Wells P. Eagleton, of Newark. Dr. Schlichter, speaking on "Our Guest", based his words on personal contact and acquaintance with the guest of honor. Dr. Eagleton spoke on "The Medical Profession", discussing its accomplishments and the prospect of better things in the future.

Dr. Green is not retiring from practice, except on the staff of the hospital.

The Woman's Auxiliary

The March issue of the Virginia Medical Monthly contained a message to the Woman's Auxiliary to the Medical Society of Virginia from Mrs. Southgate Leigh, an officer of the national as well as of the state auxiliary, which seems worthy of wide dissemination. We are, consequently, passing it on to our own members for consideration as to applicability to their respective county organizations.

"The first request of the American Medical Association to the Woman's Auxiliary was that call to arms in educating the public in preventive medicine. To be able to do this work effectively the doctor's wives must first be educated themselves. Through living so close to the profession (wives naturally absorb knowledge from their husbands), they know the value of bodily health and proper living. It is easy for them to teach by their own example that wholesome living and frequent consultations with the family doctor will go much further toward maintaining good health than the treatment of disease.

The American Medical Association has also asked the Auxiliary to sponsor child health. What better work than this for the Woman's Auxiliary? Dr. Charles Mayo has said, 'educate a child in health and you educate a whole family'.

Health is now commonly listed as the first of the objectives of general education. Today the modern schools have health programs which are not limited to disease prevention, but to increase of human happiness as well. This program aims at the attainment of health itself, not health knowledge merely. Leadership, active, informed, deliberate, should come from the doctor. The teacher and the public health nurse are the health teachers in the schools, the teacher as the regular health instructor and the nurse as the health advisor and the assistant. The teacher must be a leader in school health, and must be equipped with knowledge and the art of healthful living herself. So health workers are concentrating on teachers' training schools, insisting that allies not enemies in the health crusade be graduated as teachers. The Auxiliary can be of great assistance in this work.

Even in schools where these programs are being carried on, the doctor's wives, as members of the Parent-Teacher's Association, can urge mothers to have children examined and all defects corrected before school begins.

National Chairman of Health Education for the Auxiliary, Mrs. George Hoxie, of Kansas City, asks that 'the State and County Auxiliaries will keep in mind:

First—That personal hygiene, that is the principles upon which wise living must be based to make possible normal physical development and normal health, is necessarily dependent upon public hygiene.

Second—That since individuals and nonofficial organizations like ours cannot control public hygiene, every community must have official scientific health departments.

Third—That our first and most important work is to secure such health departments, where they do not already exist; and

Fourth—Where they do exist that our most effective work can be done in coöperating with such official health departments to the end that they be made so effective as to be of the greatest possible good to the people they are maintained to serve."

Atlantic County

Reporter by Mrs. Maurice Chesler.

The monthly meeting of the Woman's Auxiliary to the Atlantic County Medical Society took place Friday evening, March 8, at the Chalfonte Hotel.

Our president, Mrs. Samuel L. Salasin, introduced Dr. Henry O. Reik who delivered an interesting and instructive address. He stressed importance of the Auxiliary using its influence in opposing the two bills before the Legislature, Assembly 25 and Senate 44, which would allow osteopaths, chiropractors and naturopaths the same power and privileges as regular physicians, and urged that we appeal to our local Assemblymen and Senator to vote against these obnoxious bills.

Dr. Reik also spoke of the importance of Periodic Health Examinations, not only for patients, but for the doctors and their families as well.

Special mention was made by him in praise of Mrs. J. T. Beckwith, our educational and welfare chairman, for securing so many engagements throughout the county for Mrs. E. C. Taneyhill to speak.

After the reading of the minutes, which were approved as read, we were again favored by a fine talk by Mrs. E. R. Mulford, of Burlington County, who gave us a brief outline of the splendid work the auxiliary is doing in that county.

Under new business, a motion was made and carried to authorize Mrs. J. T. Beckwith to purchase four dozen chairs for the Children's Ward of the Atlantic City Hospital at an expenditure of $192.

The usual social hour followed, with cards.

Burlington County

Reported by Mrs. Roscius I. Downs

The spring meeting of the Woman's Auxiliary was held in Moorestown at the Presbyterian Chapter House on Monday, March 11.

Mrs. Robert Haldeman presided and there were 18 present, including 3 guests. Mrs. D. H. B. Ulmer was the hostess and she, with the aid of the other Moorestown members, served tea and sandwiches after the meeting.

Since the last meeting, Mrs. Haldeman had divided the county into 4 geographic groups and appointed captains for each division, for the purpose primarily of making dressings for the Bur-

lington County Hospital. Each captain reported having made dressing from 100 yards of gauze. The President urged the captains to keep in personal touch with all members of their divisions, as well as potential members. She announced her intention of relaying notices and information through the captains.

Mrs. Mulford reported that her division had planned a card party to raise funds for the purchase of Hygeia for all public reading rooms.

The society raised and contributed $10 for the Antidiphtheria Campaign. Mrs. Taneyhill, who was present, thanked the society personally, as a member of the state committee, and said that it was the first contribution from an auxiliary.

Mrs. Mulford passed around A. M. A. blanks for periodic health examinations and urged the women to submit to such examinations in order to be proper disciples of this important state society project.

Mrs. Haldeman reported that she and Mrs. Joseph Kuder had called on the Hon. Clifford Powell, Senator from Burlington County, to voice the protest of this society against Assembly Bill 25, and that he assured them of his support. Several members wrote to him and received very courteous, hopeful letters in reply.

Mrs. Taneyhill was the speaker of the day and gave her very instructive and absorbing lecture on "Death Control."

On March 7, a section of Burlington County, comprising Riverside, Delanco and Bridgeboro, a community of about 10,000 population, was made conscious of the Antidiphtheria Campaign now in progress. Mrs. Ethel C. Taneyhill, Field Secretary of the New Jersey State Medical Society, made 2 speeches in Riverside and 1 in Delanco on diphtheria. In these audiences she reached school pupils, school supervisors, nurses, school board members and many other citizens, and was enthusiastically received. The results have already become manifest.

Camden County

Reported by Mrs. T. P. McConaghy, M.D.

On February 8, the Woman's Auxiliary to the Camden County Medical Society held a short business meeting which was followed by a card party. There were 16 tables filled by the members and their friends, and all enjoyed the afternoon.

On December 16, 17 and 19, 1928, the New Jersey State Social Workers held their convention at the Walt Whitman Hotel in Camden; under auspices of the auxiliaries of Gloucester and Camden Counties, about 75 back numbers of Hygeia were distributed.

Camden County is endeavoring to secure engagements for Mrs. Taneyhill and is pleased to report the following:

Nov. 19, 1928, Camden Woman's Club, "Life of Louis Pasteur"; Jan. 8, 1929, at Fairview, Camden Parent Teachers' Association, on "Life of Louis Pasteur"; Feb. 15, Camden Kiwanis Club, on "Diphtheria Toxin-Antitoxin"; Feb. 18, Collingswood, Parent Teachers' Association, on "Diphtheria Toxin-Antitoxin".

The next meeting of the auxiliary will be held on March 15 and Mrs. Taneyhill will be with us on that date.

Hudson County

Reported by Mrs. Harry J. Perlberg

Mrs. William Freile, President, and the Executive Board of the Woman's Auxiliary to the Hudson County Medical Society, entertained the two out-of-town guests and speakers, Mrs. George L. Orton, President of the Woman's Auxiliary to the state society, and Mrs. E. C. Taneyhill, Field Secretary of the New Jersey State Medical Society, at luncheon, prior to the monthly meeting, held Friday, March 15, at the Y. W. C. A.

Mrs. Orton outlined the work being done throughout the state by the various county organizations, which indicated considerable progress.

Mrs. Taneyhill gave a lecture, illustrated by lantern slides, on the "Life of Pasteur", and spoke in detail about the great assistance given by him toward the advancement of modern medicine.

The members and their friends were greatly appreciative of the opportunity of listening to these two most interesting speakers.

Mercer County

Following is a report covering the meetings held December 11, 1928, and February 11, 1929, by the Mercer County Woman's Auxiliary:

December Meeting

Mrs. Charles F. Adams, Chairman of the Social Committee of the Woman's Auxiliary to the Mercer County Medical Society, was hostess at an all-day meeting, December 11, 1928. The members assembled at her home at 11 a. m., and folded surgical dressings for Mercer Hospital. A most delicious luncheon was served. The making of dressings was continued throughout the afternoon, even during the business meeting which followed luncheon; at least 5000 dressings were made and packed.

The principal business was the appointing of a committee to complete arrangements for the meeting of the State Auxiliary Officers at the Cartaret Club in Trenton, January 10, 1929. The members of this committee were Mrs. W. R. Little, Chairman; Mrs. H. M. Rowan, Mrs. C. F. Adams and Mrs. E. B. Bearisto.

February Meeting

On February 7, 1929, another all-day meeting was held for the purpose of making surgical dressings. This meeting was conducted at the Nurses' Home of St. Francis' Hospital, Trenton, and luncheon was served by the Sisters of that hospital.

So as to have our Spring meeting free for election of officers and delegates, it was decided to call another surgical dressing meeting for March 14, in order to make dressings for the McKinley Hospital, Trenton.

A nominating committee was appointed, consisting of the following members: Mrs. A. S. Fell, Mrs. A. D. Hutchinson and Mrs. G. N. J. Sommer.

There was also another committee appointed to select the best place available in Trenton for a state meeting.

The Mercer County Auxiliary is now having its own letterheads printed.

Five thousand surgical dressings were completed for St. Francis' Hospital at this meeting.

County Society Reports

ATLANTIC COUNTY

John S. Irwin, M.D., Reporter

The Atlantic County Medical Society held its regular monthly meeting for March at the Hotel Chalfonte, being called to order at 8:30 p. m. by Dr. Joseph Poland, President.

Dr. W. B. Stewart, Chairman of the Committee on Public Health and Legislation, stated that Assembly Bill No. 25 and Senate Bill No. 44 in all probability would not get out of committee. He also reported that a certain group of individuals, not physicians, are located on the Boardwalk and are prescribing medicines to the laity.

Dr. D. Ward Scanlon read an editorial from the Philadelphia Public Ledger concerning the work of the late Dr. Goldberger on Pellagra.

Dr. Ephraim R. Mulford, President of the State Society, was introduced by Dr. Poland, and outlined the activities of the State Society with special reference to the Antidiphtheritic Campaign; periodic health examinations; and the invaluable aid given by the Woman's Auxiliaries. He urged each member to acquaint himself with the problems of medical legislation. He lauded the activities of the former president, Dr. Walt P. Conaway, and stated that the state society had accepted the invitation of the Atlantic County Society to hold its meeting in Atlantic City in June, 1929.

The Secretary presented the applications of Drs. F. Rolfe Westney and Marcus Magill; these were referred to the Board of Censors.

A letter was read from the Atlantic County Drug Club containing an invitation to their annual banquet. A letter was also read from the Cumberland County Society extending to the Atlantic County Society an invitation to attend its spring meeting to be held at Bridgeton on April 5.

Dr. Conaway suggested the appointment of an "historian", whose duty would be the compilation and maintaining of records of the society since its inception. It was moved and carried that an historian be appointed by the president. The names of Drs. H. L. Harley and William J. Carrington were presented. It was moved and carried that a vote of appreciative thanks be extended to Dr. Carrington for his excellent literary work on the progress of medicine and the history of the Atlantic County Medical Society, which appeared recently in the Atlantic City Press.

Scientific Program

The first paper was read by Dr. Martin E. Rehfuss, on "Modern Aspects of the Medical Treatment of Gastroduodenal Ulcer". (Dr. Rehfuss has promised this paper for publication in full in the Journal.)

The next paper was by Dr. Richard Lewisohn, of Mount Sinai Hospital, New York City, on "Modern Aspects of the Surgical Treatment of Gastroduodenal Ulcer".

Dr. Lewisohn said, in beginning his paper, that naturally he does not feel that all ulcers should be treated surgically; even the most radical surgeon will not say that. However, the problem is how long to treat medically; there is wide difference of opinion. The surgical risks become greater the longer the duration of the ulcer.

Gastro-enterostomy was the method of choice in the surgical treatment of ulcer for many years. It was first introduced by Wölfler over 30 years ago, and was originally used as a life-saving operation in cases of obstruction at or near the pylorus. Doyen was the first to apply this method to non-obstructive ulcers, both duodenal and gastric. Since then it has been the most popular method for the surgical treatment of ulcer. Plastic operative procedures on the pylorus have acquired some popularity. If the method of gastro-enterostomy were ideal, these others would not have been devised in a search for a better method. Enthusiasm for gastro-enterostomy has waned in the last 10 years. Many surgeons are dissatisfied with its results and have tried new methods.

Local Excision. With or without gastro-enterostomy, there are objections to this method. If the ulcer is large, it is hard to close the defect after excision. There may be tension on the sutures with danger of leakage and resulting peritonitis. Hour-glass deformity may be produced. Removal of even small gastric ulcers which are situated at the lesser curvature, usually midway between the pylorus and the cardia, interferes materially with the motor function of the stomach. This main motor function runs along the lesser curvature to and beyond the pylorus, and destruction of this main trunk line will have disastrous effects on the nerve regulation of the stomach.

Sleeve Resection. This method results in marked disturbance of the motor function and often in hour-glass deformity.

The following methods have been devised for duodenal ulcers:

Local Excision. This, with or without gastro-enterostomy, is easy if the ulcer is on the anterior wall. But the ulcer may be on the posterior wall near the pancreas where excision is impossible.

Pyloric Exclusion. Except by Eiselsberg's method, exclusion lasts only for a short time. Eiselberg's method consists in cutting through in front of the pylorus, closing the two ends and doing a gastro-enterostomy; an operation of considerable magnitude and followed in nearly 20% of cases by gastrojejunal ulcer.

Finney Pyloroplasty. Is applicable to anterior wall ulcers only. Single ulcer of the anterior duodenal wall is rare. At least half are on the posterior wall; may be one on each wall, the so-called "kissing ulcers". They may be multiple, sometimes as many as 10 or 12. In excising an anterior wall ulcer, one on the posterior wall may be overlooked, as it is often not felt on palpation.

Partial and subtotal gastrectomy are the more radical procedures in treatment of ulcer. Partial gastrectomy removes the distal half of the stomach, the pylorus and the first part of the duodenum. It is suitable for small gastric ulcers at the reëntrant angle, pyloric and duodenal ulcers. Subtotal gastrectomy removes more than ½ the stomach. It is necessary when the ulcer is high up on the cardia or when it is a large gastric ulcer.

In recent years, partial and subtotal gastrectomies have become much more popular for gastric ulcer. However, except in Germany and Austria, radical methods in duodenal ulcer are still very unpopular. But why should radical methods be used in gastric ulcer and conserva-

tive methods in duodenal ulcer? They should be in one group as to treatment.

Haberer, in 1920, first introduced radical methods in Austria. He was decided in this because of the number of gastrojejunal and jejunal ulcers following gastro-enterostomy. The symptoms of these are severe; pain, vomiting, hemorrhage, loss of weight, disability. Some sufferers are human wrecks. Occasionally there is perforation into the colon. The surgery of gastrojejunal ulcer is difficult. Repeated operations may be done without relief. The mortality of these secondary operations is high.

Selection of operative method depends on the frequency of gastrojejunal ulcer after gastro-enterostomy. If you have a small percentage you may go on doing gastro-enterostomy. There is conflict in the various statistics reported as regards this point; some reporting 5% returning for secondary operation and some reporting over 30%. This conflict may be explained by different ways of collecting statistics. Dr. Lewisohn thinks that those based on letters are inaccurate. His are based on those cases returning for examination by x-ray and test meal, and the figures are high. They are based on the group of gastro-enterostomies done from 1915 to 1920. There were 191 in this group and 92 returned for examination. The following statistics are based on careful study of these 92 cases: perfect, 47%; fair, 19%; bad (gastrojejunal ulcer), 34%.

Other recent statistics show a large percentage of gastrojejunal ulcer following gastro-enterostomy; Bastianelli, 25%; Hirst, 20%; Haberer, over 20%.

It is usually stated that 3 substantial changes are brought about by gastro-enterostomy in the mechanics and chemistry of the stomach: (1) Sidetracking of food; (2) marked reduction of hyperacidity; (3) relief of pylorospasm with consequent healing of the ulcer.

As regards (1), experiments show that with the pylorus open, most of the meal goes through the pylorus.

As regards (2), of the group studied in 1922, comprising the cases done between 1915 and 1920, less than 3% were anacid. At the same time 77% of the partial gastrectomies studied showed anacidity. Achlorhydria is a most important safeguard against recurrence of ulcer. Dr. Lewisohn has never seen pernicious anemia follow postoperative achlorhydria.

As regards (3), cures following gastro-enterostomy (50% of the cases) are probably due to the relief of pylorospasm.

Surgery of gastroduodenal ulcer should remove the ulcer and the ulcer-bearing area and establish postoperative achlorhydria. The size of the ulcer is immaterial. The ulcer-bearing area and the distal half of the stomach should be removed to accomplish these results. He has never seen gastrojejunal ulcer develop in the absence of free HC1. In some cases achlorhydria is not established for 1 or 2 years, but once anacid, they are always anacid. Has seen 2 cases only which are exceptions to this rule.

Of all ulcers, 90% are found in the male and 10% in the female. These are the same figures found in congenital pyloric stenosis.

In cases of acute perforation, suture fails to cure in 39%. He is not prepared to say that a radical operation should be done in these cases. He prefers suture without gastro-enterostomy and possibly a later partial gastrectomy. His mortality in the radical operation is 5½%; about the same as Haberer, Friedemann and Bohansson. If you counted the late results of gastro-enterostomy, the figures would be comparable.

The medical men at Mt. Sinai support the surgeons in radical surgery. They feel that gastro-enterostomy gave poor results, and that partial gastrectomy should be done. There are some cases where partial gastrectomy cannot be done because of position of the ulcer; these include deep duodenal ulcers forming a cloaca with the common and pancreatic ducts, and gastric ulcers at the cardia. These latter would entail total gastrectomy. This category includes 1% to 2% of all ulcers. Failures are rare. Bad results have been reduced from 50% to 5% by this method.

In closing, he said that the failure of conservative methods has forced us to adopt more radical ones. He does not feel that partial gastrectomy is the last word in the treatment of ulcer. It is a difficult operation and needs much team work. He believes that the ultimate cure must come from the medical men: if they can make the patient achlorhydric, he is ready to lay down his scalpel. At present, however, by the radical method we can cure the patient so that he can forget that he has a stomach and does not need to see a gastro-enterologist or surgeon again.

Discussion

Dr. Theodore Senseman said he was gratified to hear a medical man admit that some ulcers are surgical. Some medical men seem to think that only ruptured ulcer is surgical. Dr. Rehfuss believes that each ulcer case is an individual and should be treated as such. The tendency now is to follow up carefully and realize when it becomes surgical. But many ulcer patients are still denied salvation by the fixed ideas of some medical men. In his experience, the stomach ulcer can be played with longer than the duodenal. Gastro-enterostomy is a make-shift operation. It does not always stay open; but it does give them a chance to get well.

Dr. W. B. Stewart said that as an internist he feels that a large proportion of the ulcers seen early are subject to medical treatment. Here in Atlantic City our patients often stay only a short time and we cannot follow them up. Many are unwilling to follow treatment. Dr. Lewisohn referred to spontaneous cure of ulcer. At a recent symposium of the Philadelphia County Society, Philadelphia General Hospital autopsy records showed a considerable number of healed ulcers which were never diagnosed or treated. The average medical man procrastinates. It is difficult to tell when medical treatment should end and surgical begin.

Dr. W. E. Darnall asked Dr. Lewisohn what he would do in cases not suitable for partial gastrectomy; would he do a gastro-enterostomy, or nothing?

Dr. C. L. Andrews agreed that ulcer should first have medical treatment. There is an economic factor involved as many patients cannot afford to stay in bed. One should be able to tell with some exactness when the case becomes surgical as the methods of examination are convenient. Decrease in free HC1 is the important factor in both methods. Medical treatment accomplishes this by frequent feedings, and surgery by partial gastrectomy.

Dr. T. D. Taggart said that he derived pleasure and information from both papers; both men are masters in their respective lines. Cases

can be left in medical hands if they are treated as Dr. Rehfuss treats them. He watches them for a long period of time. Dr. Lewishorn's paper was able, good and he would say radical. Partial gastrectomy is the fashion in Europe, but it is not approved by the entire profession in America. There are certain types of cases, especially duodenal, which can be operated on by excision and gastro-enterostomy with satisfactory results. Gastro-enterostomy has an established position and it is hard to displace it. Many statistics give as high as 90% cures by gastro-enterostomy.

In gastric ulcers over 2 cm. in size, partial gastrectomy is indicated. In the smaller ones, excision or cautery combined with gastro-enterostomy gives good results. Those of the pylorus and first part of the duodenum can be treated by pyloroplasty as done by the Mayos. The probability is that partial gastrectomy will give better results; but it is a question as far as American surgeons are concerned.

Dr. Hilton Reed said that he believes with Dr. Rehfuss, that all simple ulcers are medical. There are pitfalls along the dietary line. Patients do not stick to the treatment. They should be made to understand the condition and persuaded to keep to the treatment. The complicated ulcer is surgical; but afterwards it should be treated by somebody who knows ulcer laws. You cannot tell the patient that he is cured, for he should follow ulcer laws the rest of his life.

Dr. E. R. Mulford said he agrees with Dr. Rehfuss that simple ulcers are medical. The line between medical and surgical ulcer is not so hard to determine. Most men can tell when the case becomes surgical.

In closing the discussion, Dr. Rehfuss said that he has the greatest respect for the American school of radical surgeons of which Dr. Lewisohn is an apostle, but against these are other American statistics. Dr. Lewisohn says that less than half are well after gastro-enterostomy. He, therefore, proposes that all cases should have a partial gastrectomy. Dr. Rehfuss does not agree. He prefers gastro-enterostomy. He finds that there is a reduction of free HCl after gastro-enterostomy. Where does it take place? He believes that it is due to diversion of the alkaline contents of the duodenum into the stomach.

Approximately 90% cures are claimed by American surgeons following gastro-enterostomy. He feels that a fairly large percentage of stenosing duodenal ulcers are amenable to treatment by gastro-enterostomy. There is the question of malignancy in gastric ulcer, however. There is no real difference of opinion between medical men and surgeons. He finds 3%-4% of marginal ulcers following gastro-enterostomy. He does not agree with the reasoning of Dr. Lewisohn concerning the mortality of the different operations. He would take gastro-enterostomy first with its 2% mortality. He is not yet won over to the radical procedure except in large ulcers.

He prefers to start the patient on medical treatment. If he does not do well; if stenosing, if there is peri-gastritis or periduodenitis; then turn him over to the surgeon.

Dr. Lewisohn said in answer to Dr. Darnall's question that he would close the patient up without doing anything if the ulcer was gastric.

By gastro-enterostomy you reduce the acidity; but not nearly so much as by partial gastrectomy. He thinks that surgeons will become gradually more radical in the next few years. He does not agree that only the stenosing duodenal ulcer should be turned over to the surgeon. A large proportion of their cases are non-stenosing. Never operate without giving the benefit of medical treatment first; but do not wait too long.

General Staff of Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The regular monthly meeting of the Atlantic City Hospital Staff was held in the Nurses' Auditorium February 22, at 8:30 p. m., the meeting being called to order by Dr. C. C. Charlton, President

Dr. Walt P. Conaway, Chief of the Gynecologic Service, submitted his report for a period of 4 months, from August to September, 1928. During this period there were 108 admissions, 81 white and 27 colored. Of this number 82 were operated on, 6 refused operation, and 1 died from septic pneumonia a few hours after admission. The remainder were either discharged without operation or transferred to other services. Of the 82 operations there was only 1 death, which case Dr. Brown will explain to you in full. The operations comprised usual gynecologic conditions with the exception of one or two which are of sufficient interest to report in more detail.

Case 1. Mrs. E. J., colored, 37 years of age, was admitted October 23 about 6 p. m., with a history of being in a doctor's office about an hour before admission and while waiting for the physician was siezed with a severe pain in her upper abdomen, immediately followed by fainting. On admission she was apparently suffering from shock, with a blood pressure of 95/52, no pain, no abdominal tenderness, rigidity or swelling. Pulse was 88, fairly good volume. Her blood examination showed: R.B.C. 3,580,000; W.B.C. 22,300; polys, 86%; and Hgb., 58%. The next day the R.B.C. was 2,400,000; W.B.C. 13,700 with 70% polys and Hgb. 42%. There was some evidence of peritonitis not localized; no visible evidence of bleeding. Her menstrual history was normal. It was decided that there was no reason for immediate operative interference. During the night her pulse varied from 78 to 108, but early next morning she went into profound shock, with a pulse scarcely perceptible. A diagnosis of intraäbdominal hemorrhage from ruptured tubal pregnancy was made.

Case 2. Mrs. H. H., 41 years old, colored, admitted August 7 with a diagnosis of toxic adenoma of the thyroid, bronchial asthma, multiple uterine fibroids, an umbilical hernia, myocarditis with hypertension and nephritis. After several weeks of medical treatment by Dr. Andrews the patient recovered sufficiently to warrant operation; a supravaginal hysterectomy, bilateral salpingo-oöphorectomy, appendectomy and herniotomy. Much to our surprise her convalescence was not at all stormy and she left the hospital in good condition 5 weeks after admission.

During the year 1928, radium was used in 33 cases; 14 public and 19 private. A few of these cases were incurable and so far advanced that it was of doubtful value, but it did provide temporary relief so far as control of hemorrhage was concerned. We found it especially valuable

in the control of benign uterine bleeding and in each case in which it was used for that purpose it acted most satisfactorily.

In one case of a fairly fibroid tumor, in the wife of a physician who was strongly opposed to operation, the tumor was considered too large for the use of radium, but its action was most beneficial. The patient was so exsanguinated that an intravenous injection was given in the operating room before it was considered safe to give any anesthetic, even for a few minutes. A pedunculated cervical fibroid about the size of a hen's egg was removed, the uterus curetted, and 40 mgm. of radium inserted for 30 hours. The operation was performed May 31 and there has been no bleeding since. The usual signs of the menopause are now present, and so are the multiple uterine fibroids which we fully expect to cause hemorrhage later.

Dr. Westcott, who recently returned from Europe, brought us several new ideas regarding the methods of using radium now practiced at the Curie Institute in Paris and we are most happy to coöperate with him and to accept his suggestions.

Dr. J. C. Brown, Assistant to Dr. Conaway, presented the following case: Mrs. N. J., aged 43, colored, was admitted to the women's medical ward, October 30, 1928, complaining of pain in the lower abdomen and vaginal discharge. Duration of complaints 1 week. Father dead; alcoholism; at 55 years. Mother dead; Brights disease; at 50 years. Born in Florida. Had measles and mumps in childhood. Grippe almost every winter in recent years. In Spring and Summer of 1927 patient had polydipsia, polyuria, and pruritis vulva.

Head, neck and chest showed no abnormal findings. Moderate tenderness in lower abdomen; more on right. No masses. White viscid vaginal discharge. Enlarged hard cervix with erosion of the anterior lip. Uterus enlarged to size of a 3 months pregnancy; nodular, fixed in anterior position; firm in consistency.

On admission, blood count: R.B.C. 4,340,000; W.B.C. 11,000; Polys 79%. Urine showed 60 mgm.% sugar with large amount of acetone. Subsequent examinations were negative for sugar. Blood sugars: Admission, 190 mgm.%; Nov. 4, 128 mgm%; Nov. 8, 91.5 mgm.%; Nov. 13, 135 mgm.%, just before operation.

The patient remained in the ward for 12 days, during which she was sugar free and free of any discomforts. She was on a diabetic diet and insulin U-10, t.i.d. as prescribed by Dr. Scanlan. On Nov. 13 a laparotomy was done. The operation was interrupted after the abdomen was opened, to allow the patient to be catheterized. The uterus was found to be full of small fibroids and the tubes adherent to the intestines; adhesions were easily separated. The patient's heart suddenly stopped and all efforts at resuscitation were futile.

Pediatrics

Dr. Walter B. Stewart, Attending Pediatrist, reported his service for a period of 6 months in 1928. A review of the second half of the pediatric service of 1928 covers 86 cases: Of the 18 children who died during this period, 11 came to autopsy; an average of 61%. It speaks well for the present group of interns that there was such a sharp rise in the percentage of autopsies obtained during the last 3 months as compared with that during the first 3 months; 75% (9 out of 12) as compared with 33% (2 out of 6).

There was the usual variety of clinical diagnoses, without vernal or autumnal preponderance of any one particular type of illness. The relatively small proportion of cases of acute gastro-enteritis, 7% of the total number of admissions, indicates the activity and efficiency of welfare clinics and other agencies in the education of mothers on problems of infant feeding. In contrast, respiratory infections accounted for 50% of the total number.

In reviewing the entire heterogeneous group, one recalls certain cases because of an unusual clinical diagnosis or because of some interesting aspect of a more common condition. Among these are the following:

(1) The differential diagnosis between acute pulmonary and acute abdominal conditions in childhood is one which often taxes the best diagnostic resources available. This particular case again brought to mind the aphorism of Hippocrates: "Life is short and art is long, diagnosis is difficult and judgment is often fallacious." It *was* in this white girl of 4 years. There had been abdominal pain, fever, and vomiting for 3 days. The pain had appeared suddenly, but was not localized and was not persistently severe. It was present, however, throughout the illness. The temperature remained between 102° and 103°. Everything taken by mouth was vomited. On admission she lay in a deep stupor, but answered questions, when urged. Color was pale and dusky. Respirations, 40 at first, and labored, soon increased to 60; frequent cough; no abnormal findings in the lungs on the first day after admission, but signs of an early pneumonia in the right middle lobe appeared on the second day. Over the abdomen there was generalized muscular rigidity, not board-like but rather doughy to the touch. Extreme tenderness on deep pressure, most pronounced in the right lower quadrant. No mass was felt by rectal examination The leukocyte count was 6400, of which 90% were polymorphonuclears. A diagnosis was made of acute appendicitis with generalized peritonitis, and immediate laparotomy was advised. However, surgical and medical consultants considered the case one of pneumonia, without abdominal lesion, and operation was not done. A friction rub developed at the base of the right lung. The right cheek became flushed. Transient, coarse râles developed in both lungs. The child became more restless and cried out frequently. The temperature rose to 107° and she died 3 days after admission. At necropsy, the peritoneal cavity was full of yellowish green pus, which had been plastered in thick layers over many of the abdominal viscera. Photographs of these organs were shown by Dr. Kilduffe at the last staff meeting. The appendix was normal. There were numerous patches of broncho-pneumonia in both lungs, and a few small areas of dry fibrinous pleurisy. From a postmortem blood culture the pneumococcus was recovered; 420 colonies per c.c. of blood.

This, then, was an example of pneumococcus peritonitis with simultaneous bronchopneumonia and septicemia. It seems probable that the peritonitis was primary, since the lungs were clear at the time of admission, and the abdominal signs and symptoms were outspoken. The signs in the lungs developed only during the last 2 days. It is feasible to suppose that an early laparotomy would have led to recovery.

(2) The second case is that of a mulatto lad

of 6 years who showed early signs and symptoms of pseudomuscular hyperthrophy. For several months before admission he had been growing weaker. There was increasing difficulty in climbing steps and in getting up from the recumbent position. Although the disease is usually familial, no similar condition in this family was recalled by either parent. He walked well without apparent weakness. The calf muscles of both legs were markedly hypertrophic, giving the boy the appearance of a track man. The shoulders would slip through the hands, when one attempted to pick him up. He arose from the recumbent posture by "climbing up his thighs". There was no muscular atrophy at that time. The mentality was decidedly subnormal. This disease involves the muscles themselves, and not the efferent nerves. Death comes usually in from 5 to 10 years as a result of intercurrent infection.

(3) The Eberthella bentolensis is usually a nonpathogenic inhabitant of the normal intestinal tract. It is closely related to the Eberthella typhosi (or typhoid bacillus), being a Gram-negative, motile bacillus. The case here summarized, however, is one of septicemia with the Eberthella bentolensis in a white infant of 8 months, in which the clinical course bears a striking resemblance to that of adult typhoid fever. The outstanding features of the case are: Gradual onset in a healthy infant as an ordinary head cold, followed by fever which remained between 103° and 105°, without remission, for 17 days, and became normal at the end of 1 month; enlargement of the spleen during the second week; persistent leukopenia of 7000 to 9000, of which 50% to 60% were polymorphonuclears; a brief period of mucous diarrhea; presence of many small, red macules on the trunk at the end of the first week; an interesting neurologic syndrome consisting of stupor, Cheyne-Stokes respirations, and hyperesthesia; increasing rigidity of neck and of body which finally became a true opisthotonos; inability to swallow; development of a constant, coarse tremor of the head and the extremities, ptosis of the left eyelid, and internal strabismus, lasting for several days only; gradual disappearance of all these symptoms with subsidence of the fever; complete recovery without residual lesions at the end of 5 weeks. The blood culture obtained at the end of the second week had contained numerous colonies of the Eberthella bentolensis.

(4) An unusual leukocytic response to an acute infection occurred in an infant of 7 weeks. There had been a purulent rhinitis, followed by suppurative otitis media and mastoiditis. Operative drainage of the right mastoid produced no improvement. Death resulted in 3 weeks. Although the red count and hemoglobin were normal, there was hyperleukocytosis; 10 leukocyte counts ranged from 170,000 to 285,000. The average differential count was as follows: Polymorphonuclears 28%, lymphocytes 18%, monocytes 32%, myelocytes 11%, myeloblasts 5%. The platelet count was 150,000. The spleen was just palpable. The question arose whether this was a case of leukemia, as no similar instance of such a high leukocyte count in an acute infection could be recalled. However, the differential cell count and the platelet count would not indicate it. Permission for necropsy was not granted.

(5) Three cases of meningococcus meningitis were treated, 1 of which recovered and 2 died. The former illustrates the importance of the immediate treatment with serum of any patient from whom a turbid spinal fluid is obtained, without waiting for laboratory reports. Three days elapsed before the report of the growth of one isolated colony of meningococcus, during which interval serum had been given twice a day. At the end of 3 weeks the child was discharged well. One of the fatal cases was admitted too late in the course of the disease for recovery to be possible. The other was in the hospital for 6 weeks and received a total of 580 c.c. of antimeningococcus serum through 28 cisterna and lumbar punctures. The failure in treatment was a result of blockage in the flow of cerebrospinal fluid. An open anterior fontanelle would have facilitated matters.

(6) It is very doubtful whether primary pernicious anemia occurs in infancy. The few cases which have been reported seldom bear critical analysis. One infant diagnosed as pernicious anemia at the age of 6 months in the Children's Hospital, of Philadelphia, came under my observation 6 years later and was found to be a classic example of sickle cell anemia. The case here summarized in a white female, aged 3 months, is of primary anemia, although its classification as pernicious is questionable.

She had been a weakly infant since birth. The cow's milk formula was not open to criticism. It was observed that she was becoming increasingly pale and weak, and was vomiting frequently. Except for the waxy pallor and the palpable spleen, the main findings were in the blood picture: R.B.C. 1,000,000; Hb. 15%; W.B.C. 2600 to 5000 (never higher); of which the lymphocytes averaged 85, the polymorphonuclears 10%, and the myelocytes 5%; platelet count 200,000. There was a fever of 102° to 105°. Two intravenous transfusions were of only transient benefit. There was no evidence of syphilis, and no hemorrhages until a short time before death. Necropsy findings were negative. The bone marrow was normally red in appearance, but on microscopic examination showed very few myeloid elements. This is not the picture of a leukemic nor of aplastic anemia. The classification of the anemia is in doubt, and therefore would best be called primary.

(7) Prophylaxis is more important in pediatrics than in adult medicine, since the sooner the destructive agent is detected and eradicated, the less will be the damage to the organ. This is especially true of the urinary tract, since all of the various lesions that are encountered in adults, except prostatic enlargement and carcinoma, occur in infancy and childhood. The stones of the adult usually find their origin in the kidney of the child. Multiple small calculi have been found in the calices of a boy of 3 weeks of age. Orange colored crystals of uric acid are often present in the calices of the newborn. Hydronephrosis and hydro-ureter often lie latent during childhood, and only in adult life cause symptoms. Our aim should be to prevent extensive renal injury or destruction by eradicating the cause at the earliest moment.

Such a cause was present in this case, a girl of 4 years; a stricture of the right ureter resulting in pyelitis. There was a history of pyuria during the past 2 years, with acute exacerbations following attacks of acute infectious diseases. The symptoms were frequency and pain on

urination. Cystoscopic examination by Dr. Shivers led to a correct diagnosis before any real damage had been done to the kidney. Already the stricture has been dilated twice. This has produced almost complete disappearance of the symptoms and of the pyuria, and has saved the child one, perhaps two, kidneys. Had the child remained untreated, the inevitable result would have been hydronephrosis and ultimate destruction of the kidney. That physician is not doing his duty who continues to treat a patient with chronic pyuria for months without calling in a urologist to rule out a complicating abnormality of the urinary tract. Whenever urinary stasis occurs, infection eventually takes place and causes pyuria. Cystoscopic technic has been perfected to such an extent in the last few years that ureteral catheterization can be done and pyelograms be made in infants as easily as, and often with less reaction than, in adults.

Dr. Joseph H. Marcus: Dr. Stewart and his resident staff is to be heartily commended upon the thoroughness of his report and the large percentage of autopsies that he and his resident staff procured. The noticeable decrease in the number of gastro-intestinal cases might also be due to the excellent work conducted by the dispensary staff and the welfare clinics. It is also to be kept in mind that many parenteral infections which are the primary cause of gastro-intestinal conditions have received early and proper treatment as to its source. It is extremely difficult and sometimes impossible at times to differentiate between an acute respiratory condition and an abdominal illness, the only recourse being a very complete and thorough physical examination with adequate laboratory and roentgenographic aid in order to minimize all possible sources of error. This especially holds true in differential diagnosis between lobar pneumonia situated in the right base and acute appendicitis. Referring to the unusual high leukocyte count in the infant seven weeks of age, which count ranged between 170,000 and 285,000, remember that an unusually high count is also found at times in cases of pertussis with complicating respiratory infections. I have not come in contact with the high count exemplified in Dr. Stewart's case, which was that of a purulent rhinitis complicated by acute otitis media and mastoiditis. Referring to meningitis, cloudy fluid is also obtained in pneumococcic, influenzal, streptococcic and staphylococcic meningitis, and in these cases a lapse of 12 to 24 hours might be justifiable under certain circumstances to procure a smear and culture with the hope of identifying the organism. In specific meningitis, the antimeningococcic serum undoubtedly should be given as soon as possible. Dr. Stewart emphasized a very important point with reference to persistent pyuria and pyelitis, that is, a very careful cystoscopic examination with the ultimate thought in mind that either an acquired or congenital stricture of the right ureter was successfully dilated causing the complete disappearance of pyuria.

Dr. D. Ward Scanlan: Following the removal of spinal fluid it is advisable to attempt isolation of the causative organism as soon as possible and in certain cases this should be done before the use of meningococcic serum. He commented upon the rapidly changing physical signs not infrequently encountered in the chests of children and stressed the importance of a complete and careful physical examination before deciding upon a differential diagnosis between pneumonia and acute abdominal condition, especially appendicitis.

Dr. W. J. Carrington related a case of specific meningitis in a young child and the use of the antimeningococcic serum before the laboratory demonstrated the presence of the causative organism. He discussed the causative factor of blindness in cases of meningitis.

Dr. Clarence L. Andrews spoke on the efficiency of the pediatric report and thoroughness and cooperation of the various services. He reported a total of 37% necropsies for 1928.

BERGEN COUNTY

Charles H. Littwin, M.D., Reporter

(The report of the February meeting, submitted by Dr. Littwin, was in the form of transcribed stenographer's notes so imperfectly taken that they could not be used. Not having received a revision by the reporter, and desiring to avoid complete omission of reference to that meeting, the report presented below is an abstract, giving only the salient points of the record, prepared by the Editor.)

The regular monthly meeting of the Bergen County Medical Society was held at the Hackensack Hospital, Tuesday evening, February 12, under the presidency of Dr. Levitas. The Treasurer reported that 17 members were still delinquent as to their dues, and requested prompt payment. The Secretary reported upon the activities of his office, and exhibited an artistic sketch of a "seal" proposed for use by members on their prescription blanks and stationery to identify them as members of the organization. The society voted to endorse the proposed seal, and the Secretary invited members to place orders for purchase of copies.

A communication from the Visiting Nurses' Association requested advice as to the ethics of accepting employment with patients under treatment by chiropractors. A motion was adopted, authorizing the chair to appoint a special committee to serve in an advisory capacity with members of the Nurses' Association.

The scientific program of the evening consisted of a paper by Dr. Douglas Quick, of New York, upon the subject of "Radiation Treatment of Cancer", which was well presented and liberally discussed.

The Executive Secretary of the state medical society, being present, was requested to report upon the status of legislation pending at Trenton. He described the several cult bills and opened what proved to be a very lively discussion of Senate Bill 44. Drs. Morrison and McBride took part in this discussion, as officers of the state medical society, urging the county society members to do their full duty in opposing passage of the above mentioned bill. Upon motion of Dr. Bell, it was voted to draft a resolution protesting the passage of this bill and calling upon every member of the county society to sign this protest so that it might be used for its possible effect upon members of the General Assembly.

The chairman of the county society welfare committee, Dr. Chester A. King, then presented a report on the study of claims made by fellow members against the Knickerbocker Adjustment Company. Another lengthy discussion followed, during which Drs. Reik and Morrison explained their efforts to investigate these complaints, and

the failure of members to submit facts in substantiation of their claims. At the close of the discussion, Dr. Reik volunteered to go to the Knickerbocker Adjustment Company's offices with any member or group of members of the county society who would bring along their business records and correspondence for comparison with that company's records and for investigation of the complaints heretofore made.

The meeting then adjourned.

March Meeting

Regular meeting of the Bergen County Medical Society was held at the Holy Name Hospital, Teaneck, N. J., Dr. George M. Levitas in the chair. Minutes of the previous meeting were read by the Secretary, Dr. Spencer T. Snedecor, and accepted.

The first communication read was from Dr. Reik in reference to the program at the state medical convention; there being still room to get on the program in June.

The next was a letter from the Visiting Nurse Service of Hackensack, thanking the society for its coöperation in appointing an Advisory Committee to consult with them in formulating their plans for work.

Third, a letter from Hon. Ralph Chandless, in reference to his attitude toward Senate Bill 44.

The Treasurer's report was then read by Dr. Sarla, as follows: Cash on hand as of Jan. 1, 1929, $1204.97; Receipts up to March 1, $2020; making a total of $3224.97; Expenditures up to March 1, $2098.03; leaving a balance at present of $1136.94.

For the Welfare Committee, Dr. King reported an interview with Mr. Chandless which resulted in the Senator's letter to the society.

Several bills were read by the Secretary, including those for stationery and advertising in the several papers, and were ordered paid.

An application for admission, from George N. Knowles, was referred to the Membership Committee.

The next order of business was the election of new members. Drs. J. Norman Harney, of Teaneck; F. A. Wilcox, of Grantwood; Edward T. Seymour, of Tenafly; and Roger N. Blake, of River Edge; all having been approved by the membership committee, were ordered admitted, the Secretary to cast one ballot in their favor. The following were admitted to membership by transfer from other county medical societies: Drs. Helene G. Toal, of Ridgefield; Howard W. Potter, of Leonia; and H. Sheridan Baketel, of West Englewood.

The Public Relations Committee reported that cuts of the adopted seal of the society were ready and for sale at $1 a piece. Dr. Wolowitz then showed a series of lantern slides of the ads that had appeared in the newspapers during the campaign started this year. They were very well received and acted as a good introduction to the topic of the evening in the scientific section.

New business was then called for and there followed a discussion of the pending bills in the Legislature, participated in by Drs. Alexander, Levitas, Saltzman (visiting from Passaic County), McIllvane, Bell, Hallett and Pullen.

Another item under new business was brought up by Dr. Levitas in reference to forming a golf tournament among the members who aspire to be golfers. Dr. Pallen was appointed chairman of a committee to arrange such a tournament.

The chair was then turned over to Dr. Snedecor for the scientific session.

Dr. H. Sheridan Baketel, of West Englewood, Professor of Preventive Medicine in the Long Island College Hospital, was the speaker of the evening. He opened his address by saying that he gave the first course in medical economics ever given in the United States, to the students at Long Island, beginning with the college year of 1915. For many years that course was continued as a part of the work in his own department. Later on it was made a definite course, with Dr. Baketel still in charge. The interest which was thus created led other medical schools to make inquiry regarding it, so that today courses in the economics of medicine are being presented in a number of the better known medical schools.

The success of this experiment led to the establishment by Dr. Baketel and Mr. Lansing Chapman, in 1923, of the journal called—"Medical Economics". This publication is known as "the business journal of the medical profession", and was established and is being conducted solely for the purpose of presenting economics to physicians, to the exclusion of every other phase of medicine. Its success has been a little less than phenomenal and some men have gone so far as to say they regard it as the "business bible of the doctor".

A plan has been devised, known as the Medical Economics Plan, for fostering the relationship between the medical profession and the public, making that connection much closer than it has been in the past. The matter was demonstrated by means of a graphic chart, and the reason for the plan was expressed as a desire on the part of the physician to improve public health, to raise the economic standing of the medical profession, and to make its ideals better known to the laity. This should be carried out by a county society on a definite collective group of physicians. To accomplish this, it is necessary for the county society to vote a sufficient budget to carry the work through for a year.

There are 2 means of reaching the public—visual and auditory. Under the first comes the publication of paid advertisements in newspapers, signed by the society, editorial announcements of a medical nature, a regular newspaper health column feature, reports of medical activities, warnings of epidemics, and establishment at the county society headquarters of a Committee on Medical Information, composed of some of the leading members of the society, so that only authentic medical news will be issued.

Another means is contact by mail, through the sending out by individual physicians of reprints of the newspaper advertisements along with monthly statements of account; the county society's symbol or trade mark to appear on all announcements, as well as the physician's stationery, and possibly letters written by and sent through the medium of the county society to patients on strictly medical subjects.

Other means of reaching the people include booklets, approved by the county society, for distribution to patients at the office; reminders for periodic health examinations sent to patients at least once annually; posters to be displayed in public places, such as drug stores, banks, etc., along the line of those presented by the Gorgas Memorial, the Metropolitan Life Insurance Com-

pany, the American Society for the Control of Cancer, and the New York City's Health Department Diphtheria Campaign.

Dr. Baketel also suggested that the county medical society's symbol be displayed in the stores of approved druggists, and in approved clinics. He further advocated the more active utilization of hospital and county society bulletins, and the state association journals.

For the auditory method of presenting salient medical features to the laity, Dr. Baketel laid stress on radio broadcasting by medical men who can talk interestingly, by public health lectures before luncheon clubs, such as the Rotary, Kiwanis, Lions, Exchange, etc., before Women's Clubs, Parent-Teacher Associations, and similar groups.

He also stressed the importance of a closer relationship between the patient and the physician, the idea being that the doctor, or his secretary, could to the best advantage, in the quiet of the office, talk to the patient about public health matters, to the patient's great advantage.

The address was most cordially received. Lansing Chapman, publisher of Medical Economics, and also publisher of the Rutherford Republican, discussed the paper, as did Douglas F. Storer, the advertising man who is preparing the society advertisements which appear in the Bergen County newspapers.

The meeting was adjourned at 11:30 p. m., after which collation was served in the dining room.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

A regular meeting of the Burlington County Medical Society was held at the Burlington County Hospital, in Mount Holly, on Wednesday, March 13, at 1:30 p. m. This took the place of the January meeting, postponed because of the influenza epidemic. There were 24 members and guests present; the latter including Drs. Buzbee, Hunter and Diverty, of Gloucester County; Disbrow, of Ocean County; Edward Rose, of Philadelphia, and T. J. Summey, of Moorestown.

The minutes of the previous meeting were read and approved.

Dr. Walter W. Zwick, of Riverside, was introduced as a new member of the society. Dr. T. J. Summey, of Moorestown, and Dr. Mathew Hale, of Burlington, were elected to membership in the society.

Because of the interesting program the meeting was immediately turned over to Dr. Richard D. Anderson, Chairman of the Section on Practice of Medicine, who announced the following program: "Treatment of the Average Case of Diabetes", by Edward Rose, M.D., of Philadelphia; and "Treatment of Surgical Complications in Diabetes", by T. J. Summey, M.D., Moorestown.

Dr. Rose said that it was first necessary to exclude renal glycosuria, transient unstable carbohydrate tolerance, sugar from sudden stress or strain of the body as following accidents and blows on the head, and spurious cases. Next a careful physical examination is necessary, especially for pulmonary tuberculosis, focal infection from teeth or tonsils, infections of the extremities, the cardiovascular apparatus, and gallbladder disease.

Then Dr. Rose considered the therapeutic management of the average case. All cases must have the blood sugar studied. Age, sex, occupation, accustomed activity, personality, active or phlegmatic, must be considered. Some arithmetic is necessary for a proper caloric intake determination with the idea to: (1) reduce the blood sugar to normal level; (2) have it stay there; (3) eliminate glycosuria; (4) have no loss of weight.

Dr. Rose showed in figures that the normal sized adult needs about 68 gm. proteids, 134 gm. fat, 50 gm. carbohydrates. Joslin's diabetic manual is a good guide in computing proper diets. When a proper diet cannot give the above results, then only consider use of insulin. Start with an arbitrary dose. Five units once a day should be given 20 minutes before breakfast; a second dose 20 minutes before the evening meal if necessary; a third dose is best given near midnight. An over-dose gives symptoms of weakness, trembles, drop of blood pressure, cold sweats, collapse, convulsions, death. The treatment is sugar, orange juice, and 15 minims of adrenalin hypodermically. Acidosis and coma are best treated in the hospital. It is best detected by the presence of diabetic acid in the urine. This occurs from the neglect of diet or from an intercurrent illness.

Dr. Summey in his consideration of the surgical complications of diabetes said that the surgical risks in the past 5 years have not been nearly so serious as formerly; 60% are after 60 years of age. Overweight predominates over 40 years of age. There is a low resistance to infection. In abdominal surgery it is often difficult to diagnose a surgical condition from diabetes with acidosis. Now there is but little greater risk of an appendectomy in a diabetic, if proper preoperative precautions and proper anesthetics are used.

The most frequent complication is diabetic gangrene. Treatment depends on the condition present. Prophylactic treatment consists of the use of Whitefield's ointment, composed of salicylic acid, benzoic acid, phenol and camphor. Drainage and dichloramine T is sometimes used. If the infection spreads, amputation of the toe, the middle of the leg, or above the knee is performed. Another complication is septicemia with boils or carbuncles.

CAMDEN COUNTY

R. Elmer Schall, M.D., Reporter

The regular monthly meeting of the Camden County Medical Society was called to order by President Day.

We had with us Drs. Mulford, President of the State Society; Henry O. Reik, Editor of the State Journal; Hunter, of Woodbury; Diverty, of Woodbury; and Tracy, of Beverly.

The minutes of the previous meeting were read and approved. The Business Committee reported favorably on a joint meeting of the Camden County Medical Society and the Physicians' Motor Club.

The following were elected to membership in the society: Drs. Harry W. Lee, transferred from Gloucester County; Shahin M. Shahinian, transferred from Philadelphia Medical Society. E. E. Geissler, of Gloucester, applied for membership.

Dr. Reik spoke on the Shepperd-Towner Act and the proposed substitute, the Newton Bill, which is much more radical than the former law. He asked that we send representatives from our

society to Trenton to oppose Assembly Bills 25 and 44, with reference to licensing chiropractors, osteopaths and naturopaths. We should also oppose Assembly Bills 290 and 292.

Dr. Mulford expressed his pleasure in being with us and said we were fortunate in having Dr. Reik explain the pending state and national legislation. It is very important that all possible force be brought to bear on our legislators..

He is vitally interested in periodic health examinations, and in promotion of the Antidiphtheria Campaign.

Dr. A. F. Gorham read a paper on "Surgical Dentistry" (to be published in full in a later Journal), and Dr. B. F. Buzby spoke on "Orthopedic High Lights of Interest to the General Practitioner" (also to appear later in the Journal).

ESSEX COUNTY

Earl LeRoy Wood, M.D., Reporter

Attention of the Essex County Medical Society was drawn to the work of its Maternal Welfare Commission by a history of its past activities and a report of its work during the past year. Speaking at the meeting held Thursday evening, March 14, at the Academy of Medicine of Northern New Jersey, Dr. A. W. Bingham described the organization of the Maternal Welfare Commission, its regulation of the prenatal work throughout the county, standardization of records for physicians and hospitals and the determination of medical principles for prevention of the toxemias of pregnancy. This report, showing the masterly work of the commission, was an excellent answer to critics who say that American statistics of maternal mortality compare unfavorably with European figures.

In the discussion, Dr. J. N. Pannullo related personal investigations of mortality statistics that he had made in Europe. He said they indicated that the American physician is not remiss in his care of the pregnant woman, but is rather too inclusive in his compilation of statistics, attributing first and second month deaths from abortion and intercurrent diseases to the maternal mortality group. The opinion was expressed that the pregnant woman can not be better off than under the care of physicians of Essex County (Dr. Bingham's paper will be submitted for publication in the Journal).

President Richard N. Connolly expressed the sorrow of the society occasioned by the death of one of its members, Dr. J. Samuel Stage. Also, the sympathy of the society was extended to one of its former presidents, Dr. Archibald Mercer, because of the death of his wife.

The Visiting Nurses' Association had requested advice in determining a policy as to the proper attitude when called to give nursing care to a patient being treated by an osteopath or chiropractor.

Dr. E. G. Wherry, Chairman of the Ethics Committee, submitted the following reply:

"In answer to the question concerning the attitude of the Essex County Medical Society in regard to Visiting Nurse Associations furnishing nursing service to patients under an osteopath or chiropractor, the Committee on Ethics is of the opinion that the Essex County Medical Society has no jurisdiction in this matter, but believes that the action of Visiting Nurse Associations, as well as individual nurses, should accord with such rules and regulations as govern the action of such associations or individual nurses in the regular discharge of their duties, bearing always in mind that no orders for treatment should be carried out unless the individual giving the order is legally authorized to give such treatment himself."

Dr. E. S. Sherman, Chairman of the Welfare Committee, reviewed the Bills that are before the General Assembly affecting medical practitioners. Dr. Barkhorn explained the status of the dangerous S. 44, and the need for the medical profession to show strength at the hearing in Trenton, Monday, March 18. He felt that a large group of sincere doctors would carry more weight than the glib arguments of hired counsel.

Dr. S. Oleynick said that laymen giving x-ray treatments to remove superfluous hair are practicing medicine without license and seriously injuring their patrons. Destruction of the hair follicles causes an atrophy of the skin with serious complications at a later time.

The following members were duly elected: Samuel Ash, 25 Johnson Avenue, Newark; Raymond J. Brady, 320 So. Orange Avenue, Newark; N. S. Bigelow, 117 Irvington Avenue, South Orange; Roswell Kingbury Brown, 391 Fourth Avenue, Newark; S. M. Donchi, 346 Belmont Avenue, Newark; Raymond R. Grasso, 220 Clifton Avenue, Newark; William F. McKim, 1082 South Orange Avenue, Newark; Joseph Metsky, 777 High Street, Newark; Reuben Zimmerman, 29 Stratford Place, Newark.

Academy of Medicine of Northern New Jersey

Section on Diseases of Eye, Ear, Nose and Throat
E. LeRoy Wood, M.D., Reporter

Dr. J. Eastman Sheehan, Professor of Plastic Surgery, New York Postgraduate Medical School and Hospital, Surgeon and Lecturer to the International Clinic of Plastic Surgery, Paris, France, made a cinematographic presentation in colors before the Section on Eye, Ear, Nose and Throat, Monday, March 11. This was a new method of presenting motion pictures, in color, invented by a Mr. Lane. As a method of teaching surgery and presenting actual surgical methods, it seems without parallel.

Dr. Sheehan presented a method of correcting paralytic states of the face, demonstrated the use of several types of skin grafts, showed the eradication of laryngeal malignancy by diathermy, and demonstrated a simplified method of correcting disfigurements of the nose. The pictures of these operations were taken through 2 lenses, on panchromatic film, and then projected through a color filter the upper half of which is red with yellow and the lower is blue with yellow; causing the pictures to appear on the screen in natural colors.

Dr. Lee W. Hughes, Chairman, presided. After the reading of the minutes of the previous meeting the Nominating Committee reported the following recommendations for the next year: Dr. Frederick J. Wort, Chairman, and Dr. E. LeRoy Wood, Secretary.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

Members of the Gloucester County Medical Society enjoyed an illustrated lecture on "The Use of Novocain as an Anesthetic" at their

monthly meeting, March 21, at the Woodbury Country Club.

The lecture was given by Dr. I. E. Deibert and Dr. David Bentley, Jr., of Camden.

It was announced that Dr. Morris Fishbein, Editor of the Medical Journal of the A. M. A., would be the speaker at the next meeting on April 25. He will talk on "Fads and Quackery in Medicine".

Among those present at the meeting were: Doctors Ulmer, Gibbstown; Wood, Paulsboro; Black, Mickleton; Stout, Wenonah; Hollinshed and Hunter, Westville; Burkett and Knight, Pitman; Busby, Swedesboro; Hillegass, Mantua; Pedrick, Glassboro; Underwood and Stickel, of Woodbury.

Dr. Kline, Camden County, and Drs. Myatt and Moore, of Cumberland County, also attended.

HUDSON COUNTY

M. I. Marshak, M.D., Reporter

The Hudson County Medical Society met at the Carteret Club, Jersey City, on March 5, with Dr. W. J. Sweeney presiding.

Dr. Theodor Blum, D.D.S., M.D., of New York, gave a talk on "Oral Surgery" which he illustrated by lantern slides. He discussed a number of x-ray plates and films to show why he felt that all malposed and impacted teeth should be removed. They always produce a point of lessened resistance for fracture, and for focal infection to start.

Films of cysts of the jaw were next shown; divided into those which originated from diseased teeth, follicular cysts and multilocular cysts. They never communicate with the nasal sinuses or the surrounding tissues and are outside the bony structure, as a rule. His plan in operating on these cysts is to save all teeth except those immediately involved. "Cysts are simulated by angio-endothelioma, sarcoma and epidermoid carcinomas."

The next series was a demonstration of osteomyelitis. "There is never a complete loss of bone in these cases." He felt that the proper treatment was a conservative one; drainage and the sequestrum removed after it is properly formed.

Shadows of salivary calculi are at times mistaken for impacted or malposed teeth. He showed how x-ray films taken at the proper angle could differentiate these conditions.

The last group of films dealt with fractures of the jaw and showed how they were wired and splintered. Although most surgeons remove the teeth in the line of fracture, he felt that by so doing the fracture might easily be increased.

Drs. Max Luntz, D.D.S., Durand, Maver, Kuhlmann, Comora and Blum took part in the discussion.

Dr. Pollak reported that the Welfare Committee had circularized the membership in regard to the two vicious bills that had been presented to the Legislature, namely Senate 44 and Assembly 25. He urged that every one do his part to have them defeated.

Dr. Curtis reported for the Tuberculosis Institute Committee, that it is working on the plan of having as many take the course as could be accommodated. A fee of $5 as a token of good faith was expected.

Dr. C. J. Larkey read the following report of the Nominating Committee: President, A. E. Jaffin, Jersey City; Vice-President, G. F. Sullivan, Hoboken; Secretary, H. J. Perlberg, Jersey City; Treasurer, C. B. Kelley, Jersey City; Reporter, M. I. Marshak, Bayonne; Trustees (1 year), G. K. Dickinson, Jersey City; J. F. Londrigan, Hoboken; H. Klaus, Union City; W. L. Williamson, Bayonne; W. N. Barbarito, Jersey City.

Censors (3 years): Hugo Alexander, Hoboken.

Scientific Committee: H. Benjamin, Jersey City; J. Eckes, Jersey City; L. Perkel, Jersey City.

Welfare Committee (3 years): A. Kuhlmann, G. Mueller and J. F. Londrigan.

Publicity Committee (3 years): Peter Maras.

Membership Committee (1 year): Louis Pyle, Chairman; H. F. Tidwell, B. Kooperman, R. L. Ballinger, J. J. Brosdowski, M. J. Weiss, J. Koppel, J. Murray, W. G. Doran, C. P. Updyke, J. C. Talty, William Eckert, J. M. Kolb, W. N. Barbarito, J. J. O'Connor, M. Frank, J. V. Ward, J. F. Sullivan, D. B. Street, A. Zitani.

Audit Committee (3 years): J. M. Stein.

Publication Committee (3 years): Morris Shapiro, L. F. Harter, H. T. Von Deesten and A. S. Shulman.

Clinical Conference Bayonne Hospital

Maurice Shapiro, M.D., Reporter

The regular monthly meeting of the Clinical Conference of the Bayonne Hospital was held Monday evening, February 4, the meeting being called to order by Dr. Brooke at 10:30 p. m.; Dr. Shapiro acting as Secretary pro-tem.

Dr. Brooke reported a case giving a history of intestinal influenza, 2 weeks duration. Third week, tenderness in left lower quadrant. Temperature 103.8°. White cells 16,000; Polys 84%. Operation: Found mass in ileocecal junction, which was removed. On opening the mass, normal appendix was found in center. Patient did well for 5 days, then a bacteremia set in and patient died.

Dr. Weiss described a case: Male 26 years old. Seen 4 days before admission, giving a history of grippe with headache; temperature 103.4°, pulse 120. Subsided under treatment in a day, normal for 3 days, then on fourth day temperature jumped to 105° with commensurate pulse and headache. Widal positive, with 1:160 solution. After 5 days temperature went down by lysis. During stay in hospital there was no vomiting, headache, tenderness, enlargement of spleen nor rose spots. Pulse, 130, came down in proportion to the temperature; not typhoidal. Stools positive. Widal showed a bacillus resembling typhoid. Blood culture negative.

Dr. Madaras reported a case for diagnosis. Child 4 years old, seen 2½ days before admission to the hospital. Temperature 106°, pulse 140. Abdomen negative, chest negative, throat congested. Diagnosis of influenza. Next day temperature 101°; child began to vomit and continued for 2 days, with temperature 102°. Third day temperature 103° and began to show blindness, both eyes. No Babinski; no Kernig.

Admitted to hospital; temperature 99°, urine negative, blood count above normal, with 88% polys. Patient on admittance showed purpuric rash over body. Widal negative. Spinal tap 20 c.c. of cloudy fluid under pressure. Examination showed Gram-negative diplococci intracellular, with cell count 1000 per cubic millimeter. Gave 50 c.c. streptococcus serum, 20 c.c. antimeningococcus. Temperature rose to 106°, and

child died. Diagnosis: Streptococcic bacteremia.

Dr. Fifer cited a case: Woman 40 years of age; sore throat, 3 weeks' duration; no temperature nor chill, throat foul odor with cobweb membrane over tonsils and fauces. Culture from throat negative for diphtheria. Patient complained of dyspnea and appeared as if she were having a laryngeal condition. Had no adenopathy. Gave 5000 units of diphtheria antitoxin. Died in 24 hours.

Discussion

Dr. Higgins suggested the possibility of Ludwig's angina. He saw a case with no swelling external, a mass on pharynx extending to larynx; opened it, and the patient got well.

Dr. Higgins mentioned 2 cases of asthma. (1) A woman with attacks of bronchial asthma for 9 months. Was given Magendie's solution. Sensitization test, positive to everything. While in St. Luke's Hospital had 2 attacks of pneumonia, and Dr. Higgins believes that there are adhesions between the stump of wound and sigmoid which are causing twisting of the sigmoid, as there is a partial obstruction. Patient is relieved by high colonic irrigations. It is believed that there is absorption from the bowels which causes these attacks.

(2) Child, 12 years old, had an attack every 3 hours; reacted to tomatoes and peas. Relieved when these 2 vegetables were cut out.

Discussion

Dr. Marshak said ephedrin should be used hourly for 4 doses; if no relief, discontinue and use adrenalin.

Dr. Brooke called attention to the fact that in the last year he had seen many cases of asthma which did not react to the usual medication, but that sending them away from Bayonne improved them.

Drs. Weiss and Shapiro called attention to the large number of asthma cases which exist in the neighborhood of the Boulevard below Fifth Street and questioned whether the castor oil plants on Avenue A might not be the offender, as other communities where there are castor oil plants have reported a great number of cases due to this cause, and on leaving the vicinity of the plants the patients were cured.

Dr. Weiss reported a case of abdominal cancer which was admitted to the hospital 4 months ago, showing a large mass in upper quadrant. Patient refused treatment and left the hospital, returned last month with massive extension of the malignancy. Blood picture showed marked anemia with color index 0.55; hemoglobin 22%; x-ray examination showed carcinoma of pyloris.

Dr. Higgins reported a case of a girl complaining of pain in abdomen for 6 days, pain localized in left lower quadrant, mass near umbilicus. Vaginal examination negative; pain in rectum when cervix was touched. Operated upon: Abdomen was full of pus; tubes and appendix normal; omentum massed and sewed down with hole in the center; bowels covered with fibrin; gall-bladder full and tense, but emptied on pressure. Put hand under left kidney, and while lifting kidney there was a gush of foul pus. Drain put in kidney region, abdomen closed. Five days post-operative patient doing well with free drainage. Diagnosis: Subphrenic abscess.

Dr. Solomon reported a case of melena in a child 12 hours after delivery. Blood was found around the skin and cord and from rectum. Gums dusky, but no blood in mouth. Gave 10 c.c. of father's own blood. Bleeding stopped.

Meeting adjourned at 10:50 p. m. Those present were: Drs. Brooke, Marshak, Solomon, Chayes, Higgins, Madaras, Klugman, Feinberg, Fifer, Finger, Weiss, Williamson, Ferenczi, Lipshutz, Ward, Shapiro, Internes and Mr. Mass.

Conference of Jersey City Hospital Staff

Joseph Binder, M.D., Reporter

The regular monthly meeting of the Medical Staff of the Jersey City Hospital was held on Thursday, March 14 at 9 p. m., in the Out-Patient Department of the hospital. Drs. O'Hanlon, Perlberg, Santosky, J. Connell, Cosgrove, Commorato, Daly, Binder, Jaffin, Burke, J. Sullivan, Brophy, Benjamin, Winter, Brennan, Harter, Ruvane, Faison, Schneckendorf, Brownstein, Fineberg, Perkel, St. George, Kooperstein, Borshaw, Rector, and E. Connell were present.

Scientific Session

Dr. Benjamin presented a case of "Metastatic Carcinoma of the Ilium".

Patient, male, age 21, printer, was admitted in August to Medical Service for diagnosis. Gave history of pain in left sacro-iliac region which began 4 months previous after lifting a heavy weight. This pain was severe, and radiated down the left leg along the course of the sciatic nerve. Left leg shorter than the right. Transverse process of the fifth lumbar was much enlarged on the left, making pressure on the ilium. Temperature 99-101°. Fluctuating swelling developed over the left hip. Incised and culture made, but guinea-pig inoculated did not demonstrate tuberculosis. At operation, the ilium showed denudation of the periosteum and section of granulations showed metastatic carcinoma, type undetermined. No autopsy could be obtained.

Dr. Jaffin presented a series of cases. (1) "Pernicious Anemia Simulating Bacterial Endocarditis". Patient, female, single, a nurse, complaining of anorexia, weakness for past 8 months and history of hematamesis several years before of unknown origin. Admitted with temp. 102°, pallor, dyspnea, petechial hemorrhages in both eyes, loud systolic murmur at apex; dilatation of right and left heart and the arch of the aorta a little fuller than in the mitral type of heart.

Liver extract and blood transfusion resulted in a very marked improvement in the general condition. X-rays later showed a much smaller right heart, the left heart also showing a decrease in size. The murmur at the apex less marked.

(2) An x-ray picture of a female patient with bacterial endocarditis, no dilatation, no decompensation, which demonstrated the typical appearing mitral heart. He next presented a case of infiltrating glioma of the nerve roots, exhibiting spinal cord pressure symptoms. This patient had one previous laminectomy for relief of his symptoms, but this was unsuccessful because it was done too high. Following a second laminectomy and deep x-ray therapy, this patient regained power in his extremities and restoration of his bladder and rectal functions.

(3) Three lung cases. The first was a young girl, age 20, who developed a lung abscess in the lower portion of the right upper lobe, fol-

lowing wholesale extraction of her teeth. The second case was that of a man, 60 years old, with neoplasm, rapidly growing, involving almost the entire left lung. The third, a female, aged 50, with a benign adenoma of the bronchus, with collapse of the middle lobe because of obstruction by the growth.

Dr. Commorato: This is not a didatic symposium of convulsions and coma, but just a syndrome of convulsions and coma with leukocytosis and fever observed in 4 cases during the past 6 months. Two were cases in private practice and thoroughly worked up in conjunction with Dr. Van der Leith, whose reports I have with me.

(1) Male, age 44, painter, admitted in coma, but family gave history of having had convulsions of arm and legs, grinding of teeth ensuing coma, with temp. of 103°. It was natural for us to think of kidney, diabetes, and lead encephalopathy, occupational. Specimen of urine at once elimated nephropathy or diabetes as the cause of the convulsions; W.B.C. 14,000; Polys, 90%. Rest of laboratory reports negative. We used elimination therapy and 50 c.c. glucose intravenously. Within 12 hours the man was rational and feeling well. Then we obtained the additional data that he was a constant user of alcohol, but that in the past 3 days had overindulged. We now had to consider alcoholism as the etiologic factor for his convulsions and coma. Furthermore, the therapeutic measures exhibited were efficacious and you will recognize that glucose was our sheet anchor and the good results may be due to its dehydrating powers. Because of his occupation we took into consideration lead encephalopathy, but this was definitely ruled out by Dr. Von der Leith doing a basophilic aggregation test; which was negative. In a few days, the patient was up and about and a subsequent Mosenthal test, and other urinary examinations, did not show any renal dysfunction.

(2) Private patient, male, seen by me during convulsive seizure, epileptiform, with grinding of teeth, tossing about and entire body, even abdominal muscles, rigid. High colonic of glucose and bicarbonate given. One hour later Dr. Von der Leith obtained blood specimen for complete laboratory data. Glucose given intravenously. Laboratory reports did not throw any light on the cause of the convulsions and coma, except for a white blood count of 12,000; polys, 86%; temperature 104°. Patient steadily improved and within 6 hr. became mentally so lucid that he gave us a history of having indulged in alcoholics for past 3 days. Same therapeutic measures carried out as in above case, namely elimination and dehydration, worked satisfactorily.

(3) Seen in private practice, clerk, age 35 years, witnessed same picture as in above case, i.e., epileptiform seizures and coma. Laboratory work completely done by Dr. Von der Leith with negative findings throughout, except for a white count of 13,000 with 89% polys. Patient given high colonic glucose intravenously (50%) 50 c.c. and within 10 hr. he was mentally clear, with no recurrence of coma or convulsions. History from patient while convalescing brought out the fact that he is a constant daily drinker of wines and whiskey, and for 3-4 days had been overindulging.

(4) Woman, 56, brought in ward in coma, with history of having had convulsions at home for last few hours before admission. Urine examined at once by interne with negative findings; instituted elimination and dehydration therapy with good results within 6 hr. Physical examination practically negative except for some dental infection and some tenderness in the right hypochondriac region. Subsequent history brought out the fact that patient attends parties where alcoholics are freely consumed.

Comments: These 4 cases should make us keep in mind that alcoholic intoxication may be a factor in epileptiform convulsions and coma. When your laboratory reports are negative for diabetes, kidney lesions, or lues, take into consideration alcohol as an etiologic factor. The only positive laboratory findings in these cases was a marked leukocytosis which made us suspect in the beginning an infectious process because of the constant presence of temperature, ranging from 102° to 104° but which lasted only for 24 hours. Patients all improved within 24 hours; hence we omitted spinal puncture. It may be that there is in these cases a cerebral edema causing increase in intracranial pressure, which is relieved by the dehydrating powers of glucose.

Dr. Payne presented 2 cases. (1) Mrs. C. F., 30, white, gravida 1, clinic case, due January 8, 1929, was admitted on January 18 in labor. Descent of vertex slow, pains fairly regular. On January 19, at 10 a. m., rectal examination showed vertex in mid-pelvis, L. O. A. not advancing. Full dilatation of cervix. However, vaginal examination revealed that what appeared to be the cervix was the markedly thinned-out portion of the lower uterine segment with the external os exhibiting itself as a small dimple with a cartilagenous rim. A diagnosis of atresia os cervices or "os conglutinativa orificii externi" was made, and under spinal anesthesia a two-flap De Lee cesarian was done. Examination of the cervix from above elicited the same findings. Puerperium uneventful and mother and baby discharged on sixteenth day in good condition.

(2) "Acquired atresia of the vagina." Mrs. V. O., 22, white, gravida 1, due on December 22, 1928, was admitted on January 18, 1929, at 10:15 a. m., with pains every 7 minutes. Rectal examination showed vertex engaging a cervix two fingers dilated. Past history obtained later was that 2 years ago, as an O. W., an illegal abortion was performed in Germany. Patient had a stormy time for several weeks, and since that abortion experienced difficulty in inserting a douche nozzle into the vagina. Four months previous to her admission to the hospital, this patient was examined in the clinic, where atresia was noticed. She was requested to return for observation, but failed to do so. At that time it was thought to be a congenital diaphragm of the vagina, and it was felt that when the patient would go into labor, this thinned-out diaphragm could be incised and delivery allowed to proceed from below. However, after 24 hr. of good labor, the vertex which was engaged did not progress. Vaginal examination under spinal gave the impression of a constriction of the vagina forming a septum in which there were numerous small openings. In view of these findings and the probability of extension of incisions in this diaphragm into possibly the bladder or rectum or deep into the bases of the broad ligament, it was deemed advisable to perform a cesarean. The "low" classical was done, because of anticipated difficulty in delivering deeply impacted vertex. On opening the abdomen the

surface of the uterus appeared markedly congested, and it was the seat of numerous petechial hemorrhages. A normal live baby was delivered.

General condition of patient first 24 hr. was good. At the end of this time there was marked abdominal distension, vomiting, pain and temperature. Condition grew worse, and was believed to be due to retained lochia behind the septum. Examination of abdominal wound revealed a large amount of foul pus and vaginal exploration and incision of the septum allowed pus to escape. The cervix was necrotic, with internal os tightly closed. Abdominal wound reinspected, all sutures removed and pelvis partially explored. The uterus was apparently intact, i.e., the uterine sutures were holding. The upper abdominal cavity was apparently well walled off as evidenced by adhesion of omentum and upper bowel at upper end of abdominal wound. These were left undisturbed and several large cigarette drains were inserted into the pelvis, from which large amounts of foul smelling pus welled up. The abdominal wound was left open, and a wet dressing ordered. All of the above was done under spinal anesthesia, 150 mg. novocain being administered because of the marked abdominal distension. The gastric dilatation was treated by lavage at frequent intervals.

For the next 18 days, the abdominal wound was left open, draining freely. The vaginal drainage was similar in character to the abdominal. The gastric dilatation continued and temporary relief was afforded only by frequent gastric lavage of 2 gallons of water each time. The summary of treatment consisted of 39,500 c.c. saline and glucose by hypodermoclysis: 2400 c.c. 10% glucose intravenously; water by mouth in small amounts; glucose 4 oz. every 4 hr. per rectum, enemas, preceded by the hypodermic injection of eserin; duodenal drainage and at least 49 gastric lavages. The relief afforded by gastric lavage was such that the patient called for it very frequently. During the first 15 days, there were intervals of definite improvement, at the end of which time patient became stuporous and finally lapsed into unconsciousness and died 18 days post partum.

Autopsy: (1) Fatty degeneration of liver; (2) fibropurulent general peritonitis; (3) gangrenous degeneration of the uterus; (4) uterine suture line sloughed out and line of incision necrotic.

Points of interest: (1) Acquired atresia of vagina; congenital being unusual without congenital defects elsewhere in the reproductive organs. (2) Surgically, the importance of large amounts of fluids in peritonitis.

Dr. Harter presented a case of "adenocarcinoma of the rectum".

Patient, man, 25, gave history of bloody, mucous discharge from the rectum, difficulty in moving bowels for past year and the loss of from 15 to 20 pounds during the past 6 months. On inspection, the anus was patulous, and digital examination revealed a tubular mass in the rectum. Biopsy report: Adenocarcinoma. Treatment: Colostomy and secondary operation.

Dr. Burke presented a case of "incarcerated femoral hernia".

Patient, a woman, aged 53 years, admitted on November 1, 1928, with temperature and asthenia, gave history of feeling a lump in the right groin, painless, and of one week's duration. Twenty-four to 48 hr. later it became larger, extremely tender.

Examination on admission, showed a mass in right groin, as large as two hands, red, fluctuating, extending above Pourpart's ligament and down to upper third of thigh. Diagnosis: Partial Richter's hernia, i.e., gangrene of incarcerated ileum with rupture and spill of contents into subcutaneous tissues. Feces discharged from incision. The skin for 6 in. radius was excoriated and edematous. After intensive applications of various lubricants, the excoriation was checked. Fecal discharge, however, still continued. Through another incision, abdomen was opened, and an end-to-end anastomosis was done. The results were gratifying. Fecal discharge ceased and patient finally discharged cured.

Dr. Burke presented a case of "gastric ulcer". Patient, Italian, aged 26, previously admitted in 1926 for indurated ulcer on anterior surface of duodenum. At this time the abdomen was filled with stomach contents. A posterior gastro-enterostomy was done and patient felt fine for a year. Then he had pain with no relation to eating. Finally readmitted to the hospital with ulcer of stomach at margin of gastro-enterostomy. Marginal ulcer on the posterior surface of the stomach just above the stoma of previous gastro-enterostomy which was found indurated and edematous. The original ulcer of the duodenum was healed. A gastrotomy was done and the new ulcer was visualized from within.

The posterior gastro-enterostomy was unhitched and a triangular portion of the area containing the ulcer was excised. An anterior gastro-enterostomy and an end-to-end anostomosis of the jejunum was done. Patient was doing fine for several days when his mother fed him some apples. Patient bolted the pieces of apple down, hardly chewing them, with the result that perforation of the ulcerous area took place. After waiting a few days for the general condition to improve, a left sided drainage was done. After a stormy convalescense, patient got well and was discharged as cured.

Dr. Gleason reported a case of "ruptured aneurism of the aorta".

Patient, male, 74, B. P. 160/100, complained of abdominal pain and general weakness. Cold extremities, unequal pupils, heart sounds faint, no murmur. Dullness in left chest at the base. Abdominal tenderness. The picture appeared to be one of late ruptured gastric ulcer. Because of the semi-moribund condition of the patient operation was out of the question, and he died shortly after admission.

Autopsy: Left chest contained 2 liters of clotted blood. Mediastinum—blood clot. Pericardial sac also contained blood. The aorta was dilated and exhibited an aneurysm of the transverse arch with ulceration and bleeding, characterized by a generalized infiltration of the intima.

Meeting of Clinical Society, North Hudson Hospital, Weehawken, New Jersey

J. Africano, M.D., Reporter

The regular monthly meeting of the Clinical Society was held Tuesday, March 12, with Dr. P. D'Acierno as Chairman. The hospital report for February was read by Dr. Tannert: Total discharges, 251; deaths, 22, of which 13 were medical, 8 surgical and 1 pediatric; 7

autopsies were performed, a percentage of about 30%, which is an encouraging increase over the past few months; the causes of death in these cases were given.

Dr. Klaus announced that over $1500 had been subscribed to the fund for new surgical and other special instruments and apparatus; so far there is an alpine lamp, a diathermy machine, and an electrosurgical knife; the latter is the property of the Surgical Staff, and is to be used only by them.

Presentation of Autopsy Material

Dr. W. P. Braunstein. A brief discussion of the 7 autopsies performed during the month of February; some of these cases are being presented tonight.

(1) A healed tuberculous lesion in the right lung; atheromatous aorta; and metastatic hypernephroma in the liver, paravertebral lymph nodes and right adrenal gland. Hypernephroma does not usually begin in the adrenal gland itself, but from the kidney under its capsule. There are 2 kinds from the adrenal gland proper: (a) Arising from the cortex; (b) arising from the medulla (neuroblastoma). Metastases are common to the liver, lungs, kidneys and the opposite adrenal; in this case there were metastases to the bone also; the kidneys were not involved; the affected adrenal was one-half the size of the corresponding kidney, while in the opposite adrenal gland there was present a circumscribed nodule.

(2) A 7-day old white male infant, with repaired congenital exomphalos; there was also coincident bronchopneumonia; the liver was found replaced in its proper position, with a diaphragmatic attachment missing; no other congenital abnormalities present.

(3-4) Two automobile accidents. In both patients the fracture lines could be traced through several bones of the skull; in one, there was a frontal lobe laceration; in the other, the fracture of the base was so extensive that the sella turcica was split.

(5) A gastric ulcer case with terminal bronchopneumonia.

(6) Pneumococcus meningitis and pneumonia; the lungs contained a seropurulent exudate, a culture of which was sterile, so that this case may have been one of influenzal pneumonia.

(7) Another case of bronchopneumonia.

Dr. Braunstein also anounced that the laboratory was now equipped to do skin-protein-sensitization tests; he cautioned about eliminating some infectious causes first; at the present time one looks for the late spring and early summer grasses, and food proteins; tests are done also for the August and September types, and urticaria types.

Strangulated Inguinal Hernia Complicated by Undescended Right Testicle

Dr. Peters. W. M., male, age 35, nativity U. S., longshoreman. Admitted to hospital Feb. 5, at 2:00 p. m., by ambulance. Examination in the emergency room revealed a well-nourished male in sever pain; right rectus somewhat tense; left rectus soft; tenderness in the R. L. Q. on deep palpation; mass present in the right inguinal region, irreducible and very tender. A diagnosis of strangulated inguinal hernia was made and patient admitted to surgical ward.

Present illness: Onset 3 years ago while lifting a trunk; felt something give in the right side; this was followed by cramp-like pains in the abdomen. At that time he noticed a mass in the right groin. Since then he has had about 20 such attacks; relieved by lying flat on his back and taking hot drinks. On the morning of admission, he experienced severe abdominal cramps and the mass in the right groin came into view again. He was unable to relieve his symptoms; instead, vomited 3 or 4 times, the vomitus being undigested food. The pains became worse and ambulance was summoned. Patient states he never had a testicle on the right side of the scrotal sac and that he never noticed a mass in the right inguinal region before the onset of present illness.

Operation on day of admission: Undescended right testicle just outside of the internal ring about the size of a walnut; cord and vas deferens less than half the normal size; sac was 2½ in. long and contained fluid, showing evidence of reaction to the previously irreducible hernia. The sac and cord were tied at the internal ring and cut just above the ligature; sac and testicle removed. Operation terminated as per Bassini, except that the stump was secured under the arcuate fibers of the conjoined tendon.

The patient made an uneventful recovery and was discharged from the hospital Feb. 19, cured.

Hypernephroma of the Adrenal Glands

Dr. Eckert. F. O., male, white, age 58, iron worker, entered the male ward medical service on Dec. 16, 1928, complaining of constant severe pains over the spine and left hip; pains began after he lifted a heavy weight 3 months previously. These back pains were non-radiating and only relieved by rest in bed on his back. No previous surgical or medical illnesses admitted, and venereal history denied. Physical examination proved negative except for very bad teeth and some abdominal tenderness over the liver. The entire spinal column was somewhat rigid and there was extreme tenderness over the tenth to twelfth dorsal and first to fifth lumbar vertebras.

A diagnosis of spinal arthritis was made and as x-rays showed abscessed teeth, they were all removed by the visiting dental surgeon. Patient was given rectal, oral and intravenous medication for his arthritis. On Dec. 18, x-ray of spine showed rarefication of bone about the right sacro-iliac articulation; of the left hip showed separation of the tips of the greater and lesser trochanters; concluding these to be arthritic degenerative processes. On Jan. 10, 1929, radiograph of left hip revealed evidence of a separation of the lesser trochanter, and comminuted fracture was reported. During this interval patient still complained of backache with slight remissions of pain. On Jan. 25, the orthopedic surgeon diagnosed the condition as an arthritis deformans and applied a spiral body cast to support spine and correct flexion deformities in knees. This relieved somewhat the pain in the back but made patient uncomfortable and after 3 days the cast was removed.

On Feb. 1, the patient was examined carefully and the following reported: Prostate normal to touch and slightly enlarged, shows no evidence of malignancy or of being obstruction to urination. Abdomen: tenderness over right hypochondriac region and a palpable irregular mass, hard and moving with respiration. Barium enema given and x-rays showed defect at hepatic flexure. Examination of lungs revealed normal percussion note and few râles at both bases.

X-ray of lungs was reported as an intervertebral T. B. or gutter T. B.

Since, at this time malignancy of the liver or bowel was suspected, an exploratory laparotomy was advised. This was done under local anesthesia and gas-oxygen on Feb. 13. A mass in the anterior border of the right lobe extending deep into the liver; hepatic flexure of the transverse colon closely adherent and its lumen contracted; great number of hard retroperitoneal glands along the border of the foramen of Winslow and in the gastrohepatic ligament. A piece of the mass of these hard glands was removed for biopsy. After operation the patient became weaker and died on Feb. 15. Autopsy report is given below.

Temperature on admission was 100.6° and varied during the course of his illness from 100° to 102°, the maximum being mostly at 8:00 p. m. Pulse varied between 90 and 120, in proportion to the temperature. Respirations were generally normal.

Wassermann, blood and spinal, both negative. Spinal fluid: normal except for slight increase in globulin and albumen. Stools: negative for blood, pus or ova. Sputum: negative for tubercle bacilli. Blood: Hb. in December averaged 90%, but in January was reduced to 67% average. Urine: negative except for a low specific gravity.

Autopsy report—Lungs: Congestion, healed tuberculous lesion; chronic fibrous pleurisy. Heart: Parenchymatous degeneration. Aorta: atheroma. Liver: Metastatic hypernephroma. Spleen: congestion. Kidney: Parenchymatous degeneration; pyelitis. Left adrenal: Metastatic hypernephroma. Right adrenal: Hypernephroma. Paravertebral lymph-node: Metastatic hypernephroma.

Discussion

Dr. Broeser discussed the x-ray findings: one of the plates showed a bony change in the region of the lesser trochanter of the femur, which he diagnosed as sarcoma; another showed obvious difference in the size of the iliac bones, probably congenital, and a definite metastatic change around the lesser trochanter, also seen in later plates; also a plate of the lungs showing metastases, which resembled intervertebral or "gutter" tuberculosis, and a plate from the G. I. series showing a large defect in the region of the hepatic flexure.

Dr. Pearlstein had made a preoperative diagnosis of carcinoma of the colon or liver, as by physical signs one could not be separated from the other; this was an unusually interesting case in that the metastatic diagnosis could be made, but not the local diagnosis, as no one can diagnose a renal tumor except postmortem.

Dr. Justin said that the patient first came to his service 6 mos. ago primarily for a rupture, complaining of pain in the groin following an accident; both he and surgeons called in consultation felt that the pain due to the rupture was independent of another pain complained of in the back, which occurred chiefly at night, was relieved partially by atophan, and by the plaster cast; at times the patient was suspected of being a malingerer; he was rigid and tender along the spine, but had no spinal or neurologic symptoms (dissociation of pain and temperature sense); there were no definite abdominal symptoms except constipation; the end-result shows why the pain was not relieved.

Dr. Kuhlmann asserted that the patient really had arthritis deformans, as proved by the history of 6 years complaint of rigidity extending from the neck to the coccyx; contractures of the joints were present; radiograph of the spine substantiated this view; when treatment by cast, baking and massage failed, which usually gives at least temporary relief, then something more serious was suspected.

Dr. Luippold spoke of the most striking symptom, the pain, which always increased without variation; having the final diagnosis and the cause of the pain, it was easy to think backward upon the progress of the case.

Dr. Eckert remarked what a good thing it was to have the case followed through from the beginning to the end, with autopsy; otherwise the real diagnosis might have been in doubt.

Dr. Roberts thought that the growth in the suprarenal was secondary; as all malignancies to the suprarenal are metastatic, according to the latest literature.

Exomphalos in a New-Born Child

Dr. Eckert. J. V., new-born male infant was admitted Feb. 9 to ward service, presenting a large congenital defect in its anterior abdominal wall. Examination showed a small male infant, somewhat cyanotic, and with feeble pulse and respiration. A glistening mass about the size of a large orange protruded from the anterior abdominal wall and, in fact, made up most of the wall. The sac consisted of 2 layers, an outer or amniotic and an inner or peritoneal layer. The umbilical cord ran through the sac toward the interior of the abdominal cavity. The sac was transparent and the abdominal viscera could be plainly seen moving with each respiration. The defect was so large that the possibility of granulation or epitheliazation was nil and an operation was seen to be the only method of closure. This was done the day following admission and the abdominal viscera were replaced with great difficulty. The postoperative condition of the infant was poor but under stimulation some response was obtained. Nourishment was given orally with indifferent result, the infant constantly vomiting and regurgitating. Rectal feeding proved unavailing and the infant became progressively weaker, and finally died 1 week after admission. Autopsy revealed good replacement of abdominal viscera and no peritonitis, the cause of death being determined as a bronchopneumonia.

Bronchial Asthma

Dr. Pearlstein. W. P., male, white, age 56, born in Hungary, laborer. Chief complaint: marked difficulty in breathing. Admitted to the hospital Feb. 9, because of a severe attack of dyspnea, which came on suddenly while at home. Patient exhibited during the attack a marked congestion of the face with cyanosis. The accessory muscles of respiration were used excessively. Coincident with the attack of dyspnea, patient had a feeling of precordial oppression with sharp shooting pains in both legs and complained of marked frontal headache. For the past 10 yr. patient has had these "asthmatic paroxysms", particularly in the fall and winter; also frequent attacks of tonsillitis every winter for the past 5-6 yr.; and difficulty in climbing stairs without becoming markedly dyspneic.

Patient had a sore on the penis at the age of 20 and gonorrhea at 25. Has been a widower for 15 yr.; no children, no still-births or miscarriages. Father and mother both died of

heart disease. For the past 2 days expectorating a frothy mucous material, at times tinged with blood.

Physical examination: Orthopneic; respirations markedly labored; cyanosed. Few remaining teeth very carious. Pupils equal but react sluggishly to light. Diminished chest expansion, particularly on right side. Hyper-resonant percussion note throughout the chest; inspiratory and expiratory râles and expiratory wheezing present all over chest. Faint, moist crackling râles heard at both bases. Liver margin palpable 3 fingers' breadth below the costal margin. Patellar reflexes diminished. Cardiac sounds distant due to marked emphysema, no murmurs heard. Heart enlarged to left. B. P., 142/86. Urine: 4 examinations essentially negative. Blood: Hb., 90%; W.B.C., 9000; polys, 66%; lymph, 32%; monos and trans., 2%. Sputum examination negative for spirochete and tubercle bacillus. X-ray of nasal sinuses showed maxillary sinusitis. X-ray of chest negative to tuberculosis. Wassermann and skin tests all negative.

The reason for reporting this case is mainly for the differential diagnosis from a cardiac asthma. Cardiac asthma usually comes on at night, while patient is asleep, or on exertion; relieved by morphin or by the upright position. The causes of cardiac asthma are:

(1) Some think that it is due to a narrowing of the coronary vessels with partial occlusion of the vessels to the ventricular muscle and resulting acute cardiac failure and cardiac asthma.

(2) Pulmonary asthma associated with right ventricular deficiency and pulmonary stasis, or paroxysmal cardiac dyspnea depending on left ventricular failure producing irritability of the respiratory center and reflex attacks of paroxysmal dyspnea.

(3) Cardiac diseases: valvular or myocardial as produced by syphilis or arteriosclerosis.

Cardiac asthma is essentially a respiratory center phenomenon resulting from deficient arterial circulation and weakness of the left ventricle. Brochial asthmatic attacks may have their origin in different regions of respiratory mechanism, including the larynx, trachea and bronchial tree.

Asthma, therefore, may be classified thus:

(1) Laryngotracheal or obstructive asthma, may be due to inflammation or foreign body, enlarged thymus, etc. No previous history.

(2) Essential or bronchial asthma depends upon a sudden turgescence of the bronchial mucosa or a spasmodic condition of bronchial musculature. Attacks are fairly typical, expiratory dyspnea, all kinds of râles, particularly with expiration. Presence of Curschman's spirals and Charcot-Leydens' crystals in the sputum. Here hereditary history plays a rôle or the condition may be associated with allergic phenomena. Eosinophilia is often found.

Discussion

Dr. Pearlstein pointed out some of the differences between cardiac and bronchial asthma; in the former, there is usually a disturbance in the center, either due to a right-sided congestion with resulting carbon-dioxide irritation, or due to a weakness of the left ventricular muscle, so that not enough blood is poured out, with the same result. In bronchial asthma, there may be some obstruction in the trachea, larnyx, or bronchioles, from various causes, as foreign body, enlarged thymus, bronchial carcinoma, resulting in a spasm of the bronchial muscles, which is the essential thing.

Dr. Luippold asked if ephedrin or adrenalin were used, and what effect they produced; whether skin tests had been performed; and if the blood count showed an eosinophilia.

Dr. Tannert suggested sinusitis as an etiologic factor.

Dr. Comora stated it would be a hard thing to get the etiologic factor or factors; he classified them as extrinsic (pollens, dusts), and intrinsic (foci or irritation, which include tonsillitis, sinusitis); sometimes the tonsils, not necessarily diseased, may be hypertrophied in the region of the anterior pillar so that the sensory nerves in the soft palate are stimulated and cause spasm; evacuation of the antra, ethmoids, and other sinuses will relieve one-half of the cases, provided all other causes are ruled out; it is not always the sinus most severely involved that is the cause of the spasm.

Dr. Pagliughi said that it was doubtful if irrigation of the antra would cure the condition, if the patient had syphilis, or tuberculosis.

Dr. Pearlstein concluded the discussion: the blood was practically normal, without increase of eosinophiles; he thought the patient very likely was predisposed to sensitivity, as this runs in families; as to the chances of curing the patient, he doubted that much could be done, as hardly any cases are cured with such long standing—after 25 years we never hear of a cure; not much can be done by the laryngologist, for these cases must be gotten early, when they are children, for later they get to have many foci of infection; in this case a few skin-tests were done, but he was found negative to the more common causes.

Pernicious Vomiting of Pregnancy

Dr. Kolb. A female, aged 20, married, born in U. S. Family history negative. Past history: childhood diseases negative; menstruation began at 14; irregular; duration 3-4 days; no pain; last regular period Oct. 15, 1927. Two years ago patient aborted 2 months pregnancy, cause unknown. History negative for infections of gonorrhea and syphilis. Had 2 full-term pregnancies. Treated for pernicious vomiting of pregnancy in this hospital during second pregnancy; carried to term.

Present illness: Patient well until one month ago, when she began to feel nauseated, with vomiting. Became progressively worse. At first vomiting had no relation to intake of food or liquids. Later vomited every thing taken by mouth. Lately vomiting has become very bad and could not be relieved by her physician who sent her to the hospital. About the middle of November she had a blood discharge from the vagina, 1 week after she had introduced a slippery elm stick into the vagina. This was accompanied by cramp-like pains in the abdomen. Chest well developed. Lungs clear on auscultation. Heart apparently normal. No enlargement of the abdomen. Striae of pregnancy present. Uterus felt just above the symphysis pubis. Tenderness on pressure over both ovaries. A fetal heart could not be heard on aucultation.

Vaginal examination revealed a slight milky secretion about the urethral orifice which was more pronounced upon pressure. Bartholin's glands enlarged but not tender. External cervical os patulous and eroded. Internal os closed. Uterus about the size of a large apple. Tubes

and ovaries not palpable on account of tenderness.

Smears taken from the urethra, vagina and cervix negative for gonococci.

Treatment: Rest in bed. Nothing by mouth. Gastric lavages; 10% glucose given intravenously, followed by 20 units of insulin every 4 hr.; 1 c.c. corpus luteum given subcutaneously 3 times daily. Fluids were given by retention enema. In two days patient was able to retain fluids in small amounts by mouth. Later she was able to retain a soft diet. On the ninth day she signed a release and went home.

Two days later patient was readmitted with recurrence of symptoms. Treatment same plus cauterizing of eroded cervix with silver nitrate; 4 days later she was able to retain a soft diet; on Jan. 8, 1928, patient signed a release and went home. On Jan. 10, 1928, patient was readmitted with her symptoms markedly aggravated. She was in very poor condition. Vomitus was coffee-grounds in character. Pulse small and rapid; restless and complaining of intense thirst; eyes were sunken, skin dry and dehydrated. Same treatment was instituted with no relief in her general condition. A consultation was held and a therapeutic abortion decided upon. Operation was done and patient improved at once and was discharged as cured one week after the operation.

Patient one month after discharge from the hospital had no gastric disturbances and had gained 5 lb. in weight. Uterus was normally involuted. No leukorrhea present.

Comment

Fifty per cent of women suffer from nausea and vomiting about 6 weeks after they become pregnant, the symptoms lasting about 2 months. Occasionally the nausea and vomiting become more frequent and severe so that the patient is not able to take and retain nutriment. Condition sometimes ends fatally no matter how it is treated; then known as pernicious vomiting of pregnancy.

The cause may be reflex, neurotic or toxemic. The reflex type may be due to some constitutional disturbance but it is usually due to disturbance of the generative organs. This type suggests a neurotic type, and is usually cured by the correction of the underlying cause. The neurotic type usually occurs in nervous individuals who fear pregnancy or else do not wish to carry the pregnancy to term. The toxemic type is a true toxic disturbance characterized by profound disorder of metabolism and central necrosis of the lobules of the liver while the periphery of the lobules remains normal, thus resembling the pathology found in acute yellow atrophy. The renal lesions are degenerative in character and practically limited to the epithelium of the convoluted tubules, and occur only in the terminal stages of the disease.

Treatment of the toxemic type is hospitalization of the patient in bed away from the family. No food or liquids should be given by mouth. The stomach should be washed frequently and fluids given by rectum.

For the past 4 years Thalheimer has had good results by the use of glucose intravenously and insulin subcutaneously. In the toxemic form of vomiting a vicious circle of acidosis causing vomiting, and of starvation causing further acidosis seems to establish itself. Insulin helps break the circle by forcing the body to oxidize the administered glucose which in turn causes the burning of products of incomplete fat metabolism. This reduces or eliminates the ketonuria: the lower blood plasma carbon dioxide combining power is raised and the removal of the acidosis eradicates the chief cause of the severe nausea and vomiting. Food is then retained and with a proper diet rich in carbohydrates, nausea and vomiting usually do not return. Occasionally a case does not respond to medical treatment and the pregnancy must be terminated. These cases usually make a prompt recovery after operation.

Discussion

Dr. Roberts opened the discussion, stating that in his experience all treatment turned out to be temporary, though it relieved the symptoms; the same cycle is repeated, and the patients get to be "commuters to the hospital".

Dr. Schulman classed this case as a neurotic one; he has had good results with putting the patient to bed and using glucose without insulin; he referred to the methods of Polak, who uses the bluntest needles he can find when giving a hypodermmoclysis under the breasts, the psychologic effect on the patient generally stopping the vomiting.

Dr. Miller asked about blood chemistry, a van den Bergh test, and cultures from the diseased teeth; he agreed that the cause was a neurotic one, but added that the possibility of malingering must be kept in mind.

Dr. Kooperman cited a case regarded as hopeless, which got well after a blood transfusion of 500 c.c., with the same amount of normal saline.

Dr. Pagliughi asked this question: "Is it justifiable to do a therapeutic abortion?"

Dr. Weiss mentioned the sensitization test put out by the Harrower Co., based upon the presence in the maternal organism of a foreign protein from the placenta; if positive, the use of corpus luteum and placenta extract is indicated by injection; one of his cases of pernicious vomiting with an associated tuberculosis of the lungs responded to this treatment, after he had advised therapeutic abortion, which the patient refused to have done.

Dr. Pearlstein questioned the use of corpus luteum and allied preparations, as having too empiric a basis, whereas glucose and saline are more scientific, as they do away with the toxemia.

Dr. D'Acierno stated that the case came to his service the first time about 2 years ago, when the laboratory was not as well equipped as it is at the present time, when blood chemistries are done routinely in abnormal obstetric cases; such a test helps to classify the case—when non-protein-nitrogen is much increased we may be sure we are dealing with a toxic case, while if it is normal, it is more likely to be a neurotic case; as to the treatment of hyperemesis gravidarum, it should be based upon the causative factor in each individual case.

Dr. Kolb concluded the discussion; in his opinion therapeutic abortion was not only justifiable, but unquestionably indicated, for at the time of operation the patient's condition was extreme—with black vomitus, rapid thready pulse, etc., as read above, so that it was not a question of some reflex condition or neurosis, but one of toxemia with very much exaggerated symptoms.

An Unusual Case of Epilepsy in a Child

Dr. Grossman. J. A., male white child 5 years of age, the oldest of 4 children. Admitted to Dr. Tidwell's service on Dec. 7, 1928, and discharged Jan. 12, 1929. The child was brought to the hospital because of repeated convulsions.

The family history is of especial interest in this case: Mother alive and well; father was an epileptic at 5 years of age and had repeated convulsions for 6 months (severer than those of his son) and then made a complete recovery; grandfather on the paternal side had epilepsy in his childhood; seizures for 1 month and then completely recovered.

The past personal history is essentially normal: full term spontaneous delivery; birth-weight 7 lb.; talked and walked at 1 yr. of age; breast-fed up to 15 months but never received cod-liver oil or orange juice in infancy. His only past illness was measles.

History of the chief complaint dates back to July, 1928, when the child fell from a tree and landed on his head; did not lose consciousness. Thereafter became nervous, fidgety and his appetite became poor but no other symptoms appeared. In September, 1928, first had convulsions. The mother noted that there were twitchings of the face and movements of the eyes, about 2 to 4 attacks a day; later the attack would involve one upper extremity, then both upper extremities; some weeks later the lower extremities were also involved. The duration of the attacks and their frequency increased with time; finally became generalized with frothing at the mouth. Between convulsive seizures, the child had always been normal. For the last 3 weeks, an attack would come on almost every hour, regularly. The family physician called the condition "epilepsy".

Physical examination is negative except for enlarged cryptic tonsils, some adenopathy, and changes in the reflexes. The right knee-jerk was present but very sluggish. The left knee-jerk could not be elicited. Babinski, Gordon, Oppenheim signs were suggestive on both sides. There were no Kernig's or Brudzinski's signs. Convulsive seizures were noted to be unilateral and could be briefly summarized as follows: Sudden slight cry followed by tonic contraction of entire right side, including facial muscles, eyes deviated to the right; pupils dilated; slight froth at the mouth. The tonic contraction was soon converted into fine clonic seizures. The left side of the body was not involved. The entire attack lasted about 2 minutes and immediately thereafter the child would fall asleep or remain stuporous for a short time.

The first day in the hospital, the child had 4 convulsions within the first 4 hours. High fat salt-free diet and elixir luminal 1 dram t.i.d. (gr. ¼) were prescribed at once. During the first day the child had 11 convulsions; 9 on the second day; the third day 5, the fourth 8. On the fifth day, luminal was discontinued, and sodium bromide and chloral hydrate ordered. At this time the convulsions were noted to be of shorter duration. The number of seizures then were as follows: 6 the fifth day; 10 the sixth; 18 the seventh; 13 the eighth. It was evident by then that the bromides were of no benefit because the convulsions increased in number, frequency and severity; elixir luminal was prescribed on the ninth day in 1½ dram doses t.i.d. That same day the child had 22 convulsions; 10 on the tenth day; 8 on the eleventh. Consultation with Dr. Hasking, who advised a light easily digested diet, continued with luminal and stereoscopic studies of skull. On the thirteenth day the high fat diet was entirely omitted and a general, soft, salt-free diet used instead. Repeated x-ray of skull was negative. On the twelfth day 6 convulsions; on the thirteenth day several small attacks besides 8 regular seizures, but the child appeared brighter and began to speak. From then on the number and severity of convulsions lessened daily; petit mal and finally no attacks. Elixir luminal was gradually reduced, then finally discontinued, as from the twenty-seventh day on there were no convulsions.

The patient was discharged Jan. 12, 1929, after 36 days in the hospital and free from any convulsive seizures for 9 days.

Discussion

Dr. Grossman presented a graphic chart showing progress of the case, with the number of convulsions per day varying as the drug was changed, finally no convulsions after a period of luminal therapy. This case was presented primarily because of its etiologic and therapeutic aspects: (1) A predisposing cause—familial tendency toward epilepsy traced back to second and third generation. (2) An exciting factor—history of trauma. (3) A case of epilepsy definitely controlled, if not cured, by luminal therapy.

Dr. Kerdasha, who is connected with the Pediatric Department of the Post-Graduate Hospital, New York City, told of the good results obtained there with the use of a high fat diet; the reason for so many therapeutic measures in this disease is obviously because the etiology is in doubt.

Dr. Pearstein cautioned that by giving a high fat diet, and thus increasing ketosis, one is doing the same thing as giving luminal; thus, we are not getting any further with the scientific pathologic understanding of epilepsy.

Dr. Stein commented upon the family and personal histories, which afford predisposing and exciting factors in the etiology of this particular case. The treatment he uses in ambulatory cases is regulation of hygiene, attention to diet, and a short course of bromides; he cited a case coming to the clinic which gets along now without bromides; he asked if this child were a spasmophiliac.

Dr. Luippold considers epilepsy as a symptom-complex dependent on 2 chief factors: (1) A humoral, meaning certain chemical changes taking place in the body; and (2) a cerebral factor; the importance of the latter being demonstrated on the cat by inducing a convulsion by a toxic dose of absinthe, and the former by the fact that 1/7 of this toxic dose under the dura as a foreign body will produce a convulsion also; the fact that the convulsions were unilateral is also interesting, as it tends to show that there was increased pressure on one side.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Carteret Club, March 13, President R. B. Seely in the chair.

Following reading of the minutes, Dr. Seely introduced Dr. Thomas McMillan, Professor of

Cardiology of the Graduate School of Medicine, University of Pennsylvania, who spoke on the subject of "Arteriosclerotic Heart Disease".

Dr. McMillan stated that this is the most common form of heart disease after the fourth decade of life, and the most important single heart disease, as well as the most prominent, causing the dramatic sudden deaths of prominent personages. The conditions leading up to the causes of heart disease may be grouped under 4 divisions: (1) rheumatic fever; with chorea, scarlet fever, and tonsillitis in early life producing very important factors; (2) syphilis, with its attendant sequels; (3) abnormality of the thyroid gland; (4) infections (a) tuberculosis (Dr. McMillan stating that he had seen 6 such cases) and (b) gonococcus, meningococcus and pneumococcus infections. With the resulting hypertension and arteriosclerosis as the remaining causes of heart disease.

Dr. McMillan stated that there is nothing to prove that focal infection is the cause of heart disease, but that such foci should be removed discreetly and not ruthlessly—reciting 2 cases to bear out this contention. A very clearly defined picture was then described of the manner in which the gradual sclerotic process affects the coronary arteries, with the attendant symptoms produced at each of the several stages; rarely was the presence of an embolus seen in a coronary artery, its development being gradual rather than sudden and occurring in an already damaged artery.

Great emphasis was placed upon early diagnosis of the preliminary symptoms; these being more often noted in men than in women. First there appears a lack of sufficient blood supply to the heart muscle, followed by occlusion of small arteries; producing fibrosis with a later stage of cardiac insufficiency. The coronaries are not end arteries, and a most amazingly rapid formation of collateral circulation takes place. The Thebesius veins were described by Dr. McMillan as being really arteries, and they play a very important part in developing collateral circulation by their connecting directly with the coronary arteries; this process taking place after fibrosis has developed. This is a very important compensatory mechanism in the supply to the heart, during the early symptoms, where the small branches are occluded.

Early symptoms are only slightly noticeable when the patient is at rest, there being a feeling of faintness, and breathlessness upon hurrying, and fatigue after work in the late afternoon, with substernal oppression on exercising, in men 40 to 50 years of age. These symptoms are usually explained away by the patient as of minor importance; however, the disguise may be unmasked by the physician and proper advise given.

Dr. McMillan gave the history of several very interesting cases illustrating the symptoms above referred to, with final analysis of the cardiograms proving the presence of arteriosclerotic changes. The later symptoms, Dr. McMillan stated, are those of congestive heart failure, with the consequent lessened number of attacks, the cardiac pain or asthma being due to the lack of oxygen to the heart muscle or fatigue of the heart from insufficient blood supply.

Dr. McMillan then gave a résumé of the progress of the disease with the final ending, either in a gradual progressive form or with the attendant angina of sudden failure.

With the use of theobromin, as a peripheral dilator, the severe agony of the disease was somewhat alleviated, but aside from this reference to treatment, Dr. McMillan did not enlarge upon therapy to any great extent. The lantern slides clearly demonstrated the typical coronary artery disease.

The subject was discussed by several of the members who expressed themselves as being highly privileged to be present and to listen to the discourse of Dr. McMillan.

A communication from Dr. Reik, calling attention to the hearing on Senate Bill 44, with an earnest appeal for a large gathering at that time, was read and due notice taken thereof.

Drs. Hirschfield, Malone and Walsh were elected to active membership, and Drs. Carroll and Holland to associate membership; after which a pleasing social hour ensued during the serving of a luncheon.

MIDDLESEX COUNTY

William C. Wilentz, M.D., Reporter

The Middlesex County Medical Society held its regular monthly meeting March 6 at the Perth Amboy City Hospital, with Dr. Spencer presiding. There was a very good attendance.

Three new members were added to the roster of the society. A number of new applications for entrance to the society were received and referred to the committee on membership.

Dr. John Garlock, of New York, read a paper on "Compound Injuries to the Extremities". (To be published in a later issue of the Journal). The reading of the paper was augmented and made highly interesting by the showing of lantern slides, and a liberal discussion followed.

Medical Section Rutgers Club

John H. Rowland, M.D., Reporter

The regular meeting of the Medical Section of the Rutgers Club was held at the Bound Brook Inn, Friday, March 8, at 8:30 p. m. The entertainment was provided for by Drs. Gutmann, Gruessner, Faulkingham and Feher.

The speaker of the evening was Dr. Stanley P. Reimann, Director of the Rodman Wanamaker Research Institute and Pathologist to the Deaver Clinic of Philadelphia. The subject was: "Growths"—in particular reference to neoplastic growths.

About 30 members and guests were present.

Special Meeting

The special business meeting of the Medical Section of the Rutgers Club was held Friday, March 22, at Queen's Campus, Rutgers College.

Dr. Carl Rothschild was elected a member and the following officers were elected for the coming year: J. P. Schureman, Chairman; William Klein, Vice-Chairman, and J. H. Rowland, Secretary-Treasurer.

MONMOUTH COUNTY

Daniel Traverso, M.D., Reporter

The monthly meeting of the Monmouth County Medical Society was held at the Garfield-Grant Hotel, Long Branch, February 27, 1929.

Due to the absence of the President, Dr. J. F. Ackerman, and Vice-President, Dr. J. A. Fisher, Dr. R. E. Watkins, Secretary, called the meeting to order. About 25 members were present.

As there was no business to come before the society, Dr. Watkins introduced Dr. Bradley Coley, of New York, who read a paper on "Spinal Anesthesia".

The paper was interesting, and was discussed by Drs. Leonard, Holters and Watkins.

Dr. Coley was by unanimous vote made an Honorary Member of the society.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

The regular quarterly meeting of the Morris County Medical Society was held the evening of Wednesday, March 20, in the Elks' Home at Dover.

President Mial had the pleasure of presiding over an attendance of about 35 members and a few guests;, happily among the latter being President Mulford and Secretary Morrison of the State Society, Secretary and Treasurer George C. Tracey of the Burlington County Society, and Jack Brenner of the staff of the Greystone Park State Hospital.

One of the first acts of President Mial was to welcome the distinguished guests and they were cordially invited to participate in the discussions to the full extent of their inclinations.

Drs. George B. McMurray and R. J. Harquail, of Greystone Park, were elected to membership.

Treasurer Emory made a very satisfactory report of his stewardship; showing a balance of $1443.99 with only 6 members unpaid.

There was no report of the Publicity Committee, no member being present.

The Library Committee, represented by Dr. Larson, reported the renewal of the subscriptions of last year and the binding of last year's volumes.

The committee having the task in hand reported a resolution on the death of Dr. Alfred A. Lewis, which was read and adopted to be spread upon the minutes and a copy sent to Mrs. Lewis; as follows:

"Announcement of the death of Doctor Alfred A. Lewis, at the age of 82, is received by the Morris County Medical Society with sincere grief.

Dr. Lewis was born in New York City in 1847, and after preparing in medicine at the New York University Medical College was graduated in 1870. He came from Basking Ridge to Morristown in 1879 to practice. He was President of the County Society in 1885, served as Permanent Delegate to the Medical Society of New Jersey from 1903 to his death on January 1, 1929, and for the past 20 years has served as Chairman of the Credentials Committee.

His service to the society, and to this community, has been faithful and sincere. His active, cheerful presence always gave added interest to our meetings; his level headed, wise counsels for many years helped materially to guide the development of the society; his honesty, high character, and strict professional ideals were felt as an inspiring influence by every individual member with whom he had contact. His loss is deeply felt, and we hereby extend to his widow and family our sincere sympathy in the sorrow which we share."

Secretary Lathrope, being called upon by the President, reported having addressed Senator Abell and Assemblyman Young, of Morris County, and the Governor, as directed, in behalf of Dr. McBride's reappointment as Commissioner of Labor; that on the subject of special meetings there were 2 planed, 1 for April and the other for May, one on the subject of diabetes and the other on some abdominal surgical subjects; that on recent legislative activities at Trenton, which concern medical men, up to the present he thought nothing definite had been done; referred to the letter he sent to members recently, as received from the Executive Secretary, and giving his impressions of a hearing he attended on Senate 44, which was attended by quite a delegation of medical men and as many and as vociferous a delegation on the osteopathic side.

Drs. Sutphen, Krauss and Larson were elected a nominating committee to present their recommendations of officers for next year, at the June meeting; these to be voted on at the annual meeting in September.

Drs. F. Grendon Reed, of Morristown; Costello, of Dover; and Eckhardt, of Madison; were elected a Credentials Committee.

The matter of appointing or electing a Committee on Revision of Constitution and By-Laws was presented; Secretary Lathrope explaining that the point is that the State Society is revising its Constitution and By-Laws and if it goes through, there are several things that will necessitate changing ours; and there are a good many things in our constitution and by-laws which might be gone over and altered and the Executive Committee thought the society might wish to have a committee to go to work at once, so that when the state revision is adopted we will have ours in shape to harmonize. In order to get the matter formally before the society, Dr. Lathrope sponsored a motion that the President be empowered to appoint a committee of 3 to undertake the work at once. Dr. Larson proposed an amendment making the President, the Secretary and the Treasurer the committee. The amendment prevailing, the Committee on Revision of Constitution and By-Laws, consists of the President, Secretary and Treasurer.

President Mulford being invited, addressed the meeting in a manner at once interesting, entertaining and enlightening and covered in detail a variety of subjects of pressing importance; these including the Woman's Auxiliary, what they have done, are doing and can do; on the subject of Periodic Health Examinations, making convincing citations, including personal experience, and stressing that the proper man to make these examinations is the family physician as "he knows the idiosyncracies of the patient"; explaining the several fields in which the Field Secretary, Mrs. Taneyhill, can be of real assistance and urging that she be invited to address various groups and organizations; on the subject of "mental hygiene", stating that in the presence of such a distinguished man as Dr. Curry, and the other men from Greystone Park, he would not talk on mental hygiene but simply say that the subject is interesting us at present and he didn't think there was anything more important to the family physician than this subject; on the sterilization subject, citing the several states that have the law, Virginia being the latest to adopt it; that this seems to be the surest means of weeding out defective children; that when 18 cents of every dollar paid in taxes is spent for the upkeep of our mental defectives it is a serious problem; asking that it be kept in mind

and that it is up to us to learn something about it and find out just where we stand on the subject of preventive mental hygiene; on the subject of annual meetings of the State Society, speaking of the encouraging attendance and program of last year and indicating an attractive program with even larger attendance this year; and singling out for special commendation the splendid address of Mrs. Russell Shirrefs of last year.

Executive Secretary Morrison also spoke with interest and enlightenment on a variety of important topics; stressing a moving picture and lecture on Pasteur which the Field Secretary, Mrs. Taneyhill, is prepared to give on being invited; also that the Diphtheria Campaign is "all ready to go"; that the society's health and accident insurance proposition is excellent, without examination or agent and with rates 40% below other companies.

The formal scientific side of the meeting was entered into, being a program by members. (1) Some Eye Conditions of General Interest, presented by W. Blake Gibb; (2) obesity, presented by Ralph A. Eckhardt.

These papers held the interest of the members and guests throughout and did great credit to their authors. (Papers to be submitted for publication in the Journal.)

There was considerable discussion of the papers by Drs. Sutphen, Krauss, Lathrope, Mial, Mulford, Tracey, Morrison, Farrow, and the authors responded to the questions on particular points.

The hour growing late adjournment for refreshments was considered but before closing Dr. Curry asked permission to be heard, saying that prior to last year he didn't think it was ever his pleasure to meet the President of the State Society at a county society meeting; that last year Dr. Conaway honored us, with Dr. Morrison, and this year Dr. Mulford is with us in company with Dr. Morrison, and indicating that a good deal of credit is due to the latter; whereupon a vote of thanks to the state officers for being present, as proposed by Dr. Curry, was unanimously given.

Adjournment being taken, an appetizing supper was enjoyed in the dining room of the Elks' Home.

UNION COUNTY

Summit Medical Society

Wm. J. Lamson, M.D., Reporter

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines on Tuesday, Feb. 26, at 8:30 p. m., with the President, Dr. Krauss, in the chair, and Dr. Macpherson entertaining. Present: Drs. Baker, Bensley, Bowles, Burritt, Byington, Campbell, Eason, Hallock, Johnston, Keeney, Lamson, Larrabee, Macpherson, Meeker, Meigh, Milligan, Moister, Morris, Prout, Reiter, Smalley, Tator, Tidaback and Wolfe. Also, as guests, Drs. Earp, Jamison and Messina, of Summit; Dr. Allis, of Basking Ridge; and Dr. Smith, of Short Hills.

A communication was received from the Red Cross Society describing the valuable work done by its community nurse, and requesting assistance of the society in the formation of a preschool clinic. After discussion the matter was referred to the Advisory Committee of the Community Nurses (Dr. Disbrow, Chairman), with the recommendation that the subject could be best handled by the Board of Health, with a salaried physician in charge.

Dr. Prout read a letter which he had composed to be sent to our State Senator, Hon. Arthur Pierson, protesting against Bill 25, which provides for a separate examining board for osteopaths, chiropractors and naturopaths. The letter was signed by each physician present, and the Secretary was directed to write the Senator that the society was unanimously opposed to the Bill.

The paper was read by Dr. Macpherson on "Diabetes Mellitus". Dr. Macpherson, who had studied his subject under Dr. Allen, of Morristown, presented a very comprehensive survey of the disease and its treatment, and the paper showed a large amount of time and work spent in preparation. So thoroughly was the field covered that there was very little room for discussion.

PASSAIC COUNTY

F. W. Ash, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held at the Health Centre, at Paterson, March 14, at 9 p. m., with 75 members and several guests present. Dr. William Spickers presided.

The minutes of the February meeting were approved as read. Letters from Drs. A. F. McBride and Henry O. Reik, regarding bills before the legislature, were read. These bills, especially the Chandless Bill (S. 44), giving osteopaths the right to give anesthetics and do surgery, were discussed at length. Dr. Spickers urged all who were able, to go to Trenton on Monday, March 18, in the interest of the society. Dr. Hagen discussed Assembly Bill 262, which he considered a party measure from the local members of the legislature to allow the Freeholders to have direct charge of such public institutions as the new County Tuberculosis Hospital.

The scientific session was opened by Dr. Morrill's presentation of the "Orr Treatment of Osteomyelitis". In brief this treatment consists in giving free drainage by drilling holes in the bone and then packing the wound open with vaseline gauze; followed by application of a plaster cast which will completely immobilize the part. Dressings are made once in 2 weeks.

Dr. Nellis B. Foster, of Cornell Medical School Faculty, gave a very interesting discussion of "Anemia". He spoke of abnormalities of the white cells, and several conditions in which the white cells were differentiated so that the diagnosis between purpura and lymphatic leukemia and a granulocytic angina could be clearly defined. Speaking of pernicious anemia, he said that no one test is sufficient to make a diagnosis. Liver extract therapy is very satisfactory in the large majroity of cases, but a few cases, and especially late cases with cord changes, are resistant to liver therapy.

Dr. Foster's subject was discussed by Drs. Johnson, Todd, Kine, Wassing, Shapiro, Murn and others. Many questions were answered by Dr. Foster, who received a rising vote of thanks from the society for his excellent address.

Dr. Joelson's membership application was received and ordered to take the usual course.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Ephraim R. Mulford.....Burlington
First Vice-President, Andrew F. McBride.....Paterson
Second Vice-President, George N. J. Sommer.....Trenton
Third Vice-President, John F. Hagerty.....Newark
Corresponding Sec., William J. Carrington....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Norton L. Wilson, *Chairman*.....Elizabeth
James Hunter, Jr., *Secretary*.....Westville
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
Lucius F. Donohoe.....Bayonne
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires, 1932	George H. Lathrope, Newark
Second District	" " 1931	B. S. Pollak, Secaucus
Third District	" " 1930	Martin W. Reddan, Trenton
Fourth District	" " 1929	Paul M. Mecray, Camden
Fifth District	" " 1933	J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

W. E. Darnall, Chairman.....Term expires 1929
R. K. Hollinshed..... " " 1930
Lancelot Ely..... " " 1931

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City.....Term expires 1929
J. Finley Bell, Englewood..... " " 1929
Thomas B. Lee, Camden..... " " 1930
Henry Spence, Jersey City..... " " 1930
H. Garrett Miller, Millville..... " " 1931
Harvey S. Brown, Freehold..... " " 1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty.....Term expires 1929
B. S. Pollak..... " " 1929
W. Blair Stewart..... " " 1930

Alternate Delegates

George H. Sexsmith.....Term expires 1929
Philip Marvel..... " " 1930
S. B. English..... " " 1930

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark.....Term expires 1930
Edward J. Ill, Newark..... " " 1929
J. Bennett Morrison, Newark..... Ex-officio
Ephraim R. Mulford, Burlington..... Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*.....Term expires 1933
Paul M. Mecray..... " " 1934
John Nevin..... " " 1929
B. S. Pollak..... " " 1930
H. Garrett Miller..... " " 1931
Thomas W. Harvey..... " " 1932
Elias J. Marsh, *Treasurer*..... Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton.....Term expires 1931
William G. Schauffler, Princeton..... " " 1929
William D. Olmstead, Atlantic City..... " " 1930
Ephraim R. Mulford, Burlington..... Ex-officio
J. Bennett Morrison, Newark..... Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Forman.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Tranmatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
Ralph K. Hollinshed.....Westville
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
James S. Green.....Elizabeth
Edward Guion.....Northfield
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
George H. Lathrope.....Morristown
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
B. C. McMahon.....Morristown
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark
George T. Tracy.....Beverly
Clarence W. Way.....Sea Isle City

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

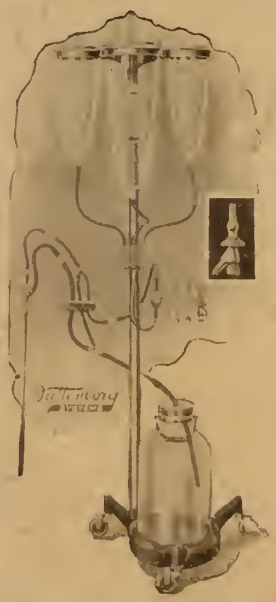
GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.



THE Vattenborg SYSTEMS WAY
TRADE MARK REG. U.S. PAT. OFF.

FOR COLON IRRIGATION

Is the coming method, because it is clean, practical and precise in action. Simple to operate and scrupulously hygienic.

MANY NEW AIDS EMBODIED

A patented anal speculum, allowing intake and free return flow simultaneously, also for escape of gaseous matter.

Individual control of three percolators without changing tubing.

Deflation bulb for expelling air.

No distention or griping as is commonly associated with irrigators having no return flow.

NO PLUMBING FIXTURES NECESSARY

FREE An interesting brochure, illustrating and describing the above will be sent on request.

McINTOSH
ELECTRICAL CORPORATION

Protected by U. S. Letters Pat. and Manufactured under Exclusive License.

NEW YORK 303 Fourth Avenue
Phone: Gramercy 7058

Main Office and Factory
223-233 N. California Ave.
CHICAGO, ILL.

McIntosh Elec. Corp.

Gentlemen:
Please send me Vattenborg brochure and your terms of purchase on the Vattenborg Colon Irrigator.

Name.....
Address.....
..... N.J.S.M.J.

CONVENTION NUMBER

THE ANNUAL MEETING—JUNE 12, 13, 14, 15
HADDON HALL, ATLANTIC CITY, N. J.

THE JOURNAL

OF THE

Medical Society of New Jersey

MAY 13 1929
LIBRARY

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103. Act of Oct. 3, 1917, authorized July 29, 1918

Vol. XXVI., No. 5. Orange, N. J., May, 1929 Subscription, $3.00 Per Year Single Copies, 30 Cents

CONTENTS

ORIGINAL ARTICLES— Page

Physicians of Colonial Days in Burlington County—Dr. Richard D. Anderson 387

Anemia in Gastro-Intestinal Carcinoma—Drs. Thomas Fitz-Hugh, Jr., and William T. Shell, Jr. 391

Voluntary Mutism—Dr. Michael Vinciguerra 395

ORIGINAL ARTICLES— Page

Newer Methods of Therapy in Pneumonia—Dr. Horace S. Baldwin 398

Guild Coöperation Between Prescription Optician and the Eye Physician—J. G. Reiss 401

The Management of Carcinoma of the Uterine Cervix—Dr. J. Thompson Stevens 406

Continued on page VI.

At this Season!

Each tablet Calcreose 4 grains contains 2 grains of pure creosote combined with hydrated calcium oxide.

Each fluid ounce Compound Syrup of Calcreose represents Alcohol—24 mins., Chloroform approximately 3 mins., Calcreose Solution 160 mins. (Equivalent to 10 mins. of creosote), Wild Cherry Bark 20 grains, Peppermint, Aromatics and Syrup q. s.

SPRING COLDS are apt to hang on. When they are accompanied by stubborn coughs or bronchial affections, a good expectorant like Calcreose is just the remedy you need.

Two dosage forms of Calcreose are available. Calcreose Tablets, 4 grains, are preferable for the more serious coughs and in bronchitis and tuberculosis.

Compound Syrup of Calcreose will answer your requirements when a pleasant tasting, effective cough syrup is indicated. Liberal samples to physicians. The MALTBIE Chemical Co., Newark, N. J.

MALTBIE Calcreose

MEAD'S DEXTRI-MALTOSE in Any System of Infant Feeding—

Suggested Formulae for 24 Hour Feedings

Fresh Cow's Milk

	Oz.
Mead's Dextri-Maltose	
Fresh Cow's Milk	
Water	

Lactic Acid Milk

Mead's Dextri-Maltose	
Mead's Powdered Lactic Acid Milk	
Water	

Protein Milk

Mead's Powdered Protein Milk	
Mead's Dextri-Maltose	
Water	

Evaporated Milk

Mead's Dextri-Maltose	
Evaporated Milk	
Water	

THE greater known assimilation limits of Mead's Dextri-Maltose make this form of carbohydrate most acceptable to replace the deficiency found in all cow's milk and water formulae. This is true of any system of infant feeding.

For many years physicians have used it with good results in fresh cow's milk and water modifications. Yet within recent years the milk itself has undergone various modifications or alterations for the sake of preservation. In many cases these alterations have given definite advantages over fresh milk for different conditions in infant feeding.

Among such milks may be mentioned:

Powdered Lactic Acid Milk
Evaporated Milk
Powdered Milk
Powdered Protein Milk
Fresh Cow's Milk

The advantages following the use of Mead's Dextri-Maltose in fresh cow's milk and water mixtures will be present when this carbohydrate is used in any of the above milk mixtures.

Use it in these formulae as you do in the feedings prepared from fresh cow's milk and water. Its addition to the infant diet in any of these milks will meet with good clinical results in the majority of cases. Its known assimilation limits assure its absorption with a minimum tax upon the digestive tract of the infant. Freedom from nutritional disturbances has always been noticeable whenever it is used.

MEAD JOHNSON & COMPANY

Infant Diet Materials Exclusively

Evansville, Indiana, U. S. A.

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 5 ORANGE, N. J., MAY, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

PHYSICIANS OF COLONIAL DAYS IN BURLINGTON COUNTY

Richard D. Anderson, M.D.,
Burlington, N. J.

It has been an honor and a pleasure to act as President of this society during the past year, and on this occasion, the Ninety-ninth Anniversary of the Burlington County Medical Society, I propose to review briefly the lives of the physicians of "Colonial Days" in this county. I am also privileged, through the courtesy of 2 Burlington pharmacists, Mr. H. B. Weaver and Mr. Walter R. Anderson, to exhibit several books of historic interest. One, a rare binding published in England in 1692, describing the various medical remedies used in the latter part of the seventeenth century; the other containing the original prescriptions of Burlington physicians during the middle of the nineteenth century, from 1856 to 1858. It has been noted that prescriptions of that period were initialed and not signed in full by the physicians, and the predominating initials on several thousand prescriptions reviewed were found to stand for the following named physicians: J. Howard Pugh, David B. Trimble, S. W. Butler, Charles Ellis, T. E. Waller and Franklin Gauntt. Doubtless these names will be familiar to many of our older physicians now living in Burlington County. These prescriptions were compounded by an apothecary named W. J. Allinson, whose drug store was located at Union and High Streets in the building erected in 1731 and now occupied by Mr. Walter R. Anderson, pharmacist. The apothecary, Allinson, seems to have pasted his prescriptions in an old ledger book of one James Sterling, a Burlington merchant in business here as early as 1789, and Mayor of Burlington from 1801 to 1806. Several pages of this ledger, unused for the purpose of recording the doctors' prescriptions, show interesting accounts of Burlington inhabitants in the eighteenth century. There have been noted among these old accounts the names of 2 Burlington physicians, obviously living in 1792: Dr. Wm. McIlvaine, whose life will be reviewed later in this paper; and Dr. David Greenman. The only other record of the latter physician that has been discovered by me is that found on page 26 of the Burlington County Medical Society's Constitution and By-Laws, where a Dr. Daniel Greenman is mentioned as one of those physicians living in Burlington in 1787 "so far as can be found". It would seem from the records in this old ledger book that our Constitution and By-Laws are in error as to this doctor's first name.

An historic review of the pioneer physicians of Burlington County reveals an amazing list of gentlemen, representing in large measure the aristocracy of their time. Men who practiced their chosen profession unhampered by the edicts of an Eighteenth Amendment and by tantalizing statistical bureaus exacting a lengthy biography of every new-born child. Freed now from the tyranny of religious intolerance suffered in Great Britain, the colonial doctors of West New Jersey went about their work in comparative comfort and peace. They were

trusted by their patients and respected by their fellow-men. They enjoyed large families, most of them lived to ripe old age, and worshipped God according to their liking.

Prior to the advent of physicians in the Colony, the needs of the sick room were attended chiefly by the clergy, school masters and old women. This custom undoubtedly persisted for some time after the coming of physicians, for we find that an Episcopal rector of St. Mary's Church in Burlington was practicing medicine along with his ministerial duties as late as 1769. It would seem that in some of the other colonies, particularly in Massachusetts and New York, the healing art had not advanced with the times and was in rather ill repute. A Dr. Douglass, of Boston, writing in 1718, says: "In our plantations, a practitioner—bold, rash, impudent, a liar, basely born, and uneducated—has much the advantage of an honest, cautious, modest gentleman. In general, physical practice in our colonies is so perniciously bad * * * it is better to let nature take her course than to trust to the honesty and sagacity of the practitioner. * * * When I first arrived in New England I asked a noted and facetious practitioner what was their general method of practice. He told me it was very uniform—bleeding, vomiting, blistering, purging and anodynes. The saying may, with propriety, be applied to them, 'He that sinneth against his Maker let him fall into the hands of the physician'." Smith, in his history of New York, says: "Few physicians amongst us are eminent for their skill. Quacks abound like the locusts of Egypt. * * * Any man at his pleasure sets up for physician, apothecary or surgeon. No candidates are either examined or licensed or even sworn to fair practice." However, Dr. Douglass was probably a Puritan and exaggerated the failings of his fellow practitioners through professional jealousy or because of religious differences. The historian speaks of New York physicians and not of our medical forbears here in West New Jersey. Quacks still abound and thrive in our midst, not as the locusts of Egypt, but like unto the Japanese Beetles of Jersey.

All historians agree that Daniel Wills, a Quaker, born in 1630 in Northampton, England, was the first physician to practice medicine in Burlington County. Dr. Wills, along with other Friends, among them John Stokes, John Kinsey, John Penford and Robert Stacy, seeking religious freedom as well as adventure, came to this country in 1677. These men, all Quakers and commissioners of certain London proprietors, crossed the perilous Atlantic in the Kent, "being the second ship from London to these western parts". They brought with them about 230 passengers, most of whom were Friends. Landing at Chygoe's Island in the Delaware, now the City of Burlington, on June 16, 1677, they immediately began to establish friendly relations with the Indians. Soon they purchased from the natives a 600 acre tract of land on the east side of the Delaware, between this river and the Rancocas creek. Dr. Wills employed a surveyor named Noble, from New Castle, Delaware, who had come over in the first ship, and with his aid laid out the City of Burlington which they first called New Beverly, then Bridlington and finally Burlington. Thus we see that a member of our own profession, a Quaker, founded the city in which this meeting is held today.

There is no record of Dr. Wills' medical education although Wicks says: "History speaks of Daniel Wills as a practitioner in chemistry. From the number of medical books and surgical instruments (presented to the Burlington County Historical Society and on display at the society's home, the old James Fennimore Cooper House, 457 High Street, Burlington) he left * * * his practice of medicine must have been large". According to Stackhouse: "He seems to have been a man of means * * * possessed ability as a manager and organizer and much of the success of the colonies was due to him. He was author of 2 books—one a small quarto entitled 'A Few Queries to Simon Ford, Priest at the Town of Northampton', published in 1682; the other, 'An Exhortation to All Friends to Dwell in the Courts of Our Lord, Jesus Christ', published about 1665." Dr. Wills had thrice suffered imprisonment in England for his refusal to swear allegiance to the King and for religious utterances on behalf of Quakerism. He went to the Barbadoes on

business, where he was taken ill and died March 26, 1689, and there his remains were buried in the Friends' Burial Ground.

The next physician of whom there is record was Dr. John Goslin who lived in the City of Burlington in 1676, and it is probable that he came from England a short time prior to this. He was one of the signers of "The Concessions and Agreements of the Proprietors, Freeholders and Inhabitants of the Province of West New Jersey, in America". He married Mary Budd in 1685. He was a large land owner and filled many important positions of the colony. He was known in Burlington as "Merchant and Physician" and this is all the knowledge we have of his medical career. He too went to the Island of Barbadoes where he died in the year 1685.

Dr. Robert Dimsdale came to America with William Penn in 1683. He was a man of wealth and located a large tract of land south of Mt. Holly, in the neighborhood of Lumberton, on both sides of the stream which he called Dimsdale Run. He does not seem to have attempted to establish a record as a practitioner in the county, although his character as a good citizen and worthy Quaker entitles him to a place among the early physicians of the county. He returned to England in 1688 where he died in 1718.

Dr. John Rodman was born in the Barbadoes in 1679 and came to Burlington, where he settled and practiced medicine in 1725. He too was an active member of the Society of Friends, the son of a physician who practiced in Rhode Island. He became a member of the Board of Aldermen of the City of Burlington, and in 1738 was appointed a member of His Majesty's Council for the Province of New Jersey. He died in Burlington July 13, 1756.

Dr. Joseph Brown is mentioned in Franklin's "Autobiography" as living in Bordentown in 1723. Dr. Franklin, describing his famous voyage from Boston to Philadelphia, says: "I got to an inn in the evening within 8 or 10 miles of Burlington, kept by one Dr. Brown. He entered into conversation with me while I took some refreshment and, finding I had read a little, became very obliging and friendly. Our acquaintance continued all the rest of his life * * *. He had some letters and was ingenious, but was an infidel and wickedly undertook some years after to turn the Bible into doggerel verse." In the old Township Book of Chesterfield, there occur the following items: "At a township meeting in 1738, four shillings to Mr. Brown for ye cure of a poor woman. One pound, one shilling, eight pence to Joseph Brown for ye trouble he had with a man who dyed at his house". According to Woodward's history: "It is reasonable to infer that the doctor married Rebecca, daughter of Joseph Borden, the founder of Bordentown".

The next physician of Burlington County was a Scotchman, born in Scotland in 1713, Dr. Alexander Ross. He was graduated at the University of Edinburgh and emigrated to America in the early part of the eighteenth century. He settled at Bristol, Pa., where he studied medicine under Dr. Denormandie, married the old doctor's niece, and moved across the river to Burlington, where he settled to practice. He subsequently moved to Mt. Holly where he developed an extensive practice. He is said to have ridden a black mare, with his saddle bags stuffed with medicines, and requiring 2 weeks, generally, to make each of his patients a visit. Dr. Ross abandoned his practice in 1776 to enter the Continental Army, in which he served as a surgeon throughout the Revolutionary War. He died May 10, 1780, leaving a wife and 3 children, one of whom, John Ross, became a physician and immediately entered the army in the capacity of a Medical Officer where he served until the termination of the war; it seems that he never entered the practice of medicine in civil life.

Dr. Daniel Budd was educated at Princeton and later studied medicine in Philadelphia. He settled first in Mt. Holly and subsequently went to New Mills, now Pemberton. He was an exceedingly popular man and his society was highly prized by the convivial; consequently he neglected his practice because of over-indulgence. At the outbreak of the war he was glad to enter the Continental Army, and served with Washington at the Crossing of the Delaware and at Valley Forge. After the war Dr. Budd went to New York, where

he resumed practice, and later died of alcoholic cirrhosis of the liver in 1815.

Dr. Stacy Budd was born in Burlington in 1740 and studied medicine here under Dr. Alexander Ross, and under Dr. Say in Philadelphia. He settled in Mt. Holly, living in the house of John Munro, whose daughter he married in 1762. He was ousted from the Society of Friends for this marriage but later induced his wife to become a Quaker, whereupon he was reinstated as a member. He later moved to Moorestown only to return to Mt. Holly after a year's absence. He was highly respected as a doctor, particularly by the poor. His practice extended from the Delaware River to the Atlantic Ocean, and he is said to have frequently made the trip by horseback. Dr. Budd died in 1804 and his remains were interred in the Friends' Burial Ground at Mt. Holly.

Dr. Benjamin Say Budd, the son of Dr. Stacy Budd, studied medicine under Dr. Say in Philadelphia, as did his father. Returning to Mt. Holly he entered partnership with his father and after the latter's death continued his very extensive practice. His personal appearance was attractive and his costume neat; he wore his hair long behind and tucked it up with a comb. He died in 1833 at the age of 64, leaving a son, Benjamin Say Budd, Jr., who studied medicine but did not become a practitioner.

Dr. Wm. McIlvaine was born in Philadelphia in 1750. He was sent to Scotland when 16 to attend the University of Edinburgh, where he received his medical degree about 1770. He returned to America in 1773 and settled in Bristol, marrying a Miss Rodman. He moved to Philadelphia in the year 1793, and encountered the great epidemic of yellow fever. He sent his family to Burlington to escape this scourge and, later, himself fell victim to the disease. Dr. Rush speaks of the cure of Dr. McIlvaine as one of the first trophies of his "new remedy" for the disease, which was "Calomel gr. 10 and Jalap gr. 15, given 3 or 4 times daily until purging is produced". After the doctor's recovery, he returned to Burlington to join his family and practiced medicine here until his death in 1806. He had served as a surgeon in the Revolutionary War in Colonel Reed's regiment. His remains were interred in St. Mary's Churchyard, Burlington.

Dr. Jonathan O'Dell, an Episcopal clergyman and physician, was born in 1737. He was educated for the medical profession in England and later served as a surgeon in the British Army. In 1767 he was ordained a priest and shortly afterward returned to his native land to be stationed at Burlington, where he was rector of St. Mary's Church for 9 years. His income as parson being inadequate, he began the practice of medicine about 1769, and later became a member of the New Jersey Medical Society. The doctor was a Tory and loyal to the King of England. In 1777 when the Hessians attacked Burlington he induced their commander to spare the town and its inhabitants from bombardment. A few days later, however, the Continental Army came, drove the Hessians out of the town, and began a search for Tories. The parson-doctor sought refuge in Mrs. Margaret Morris' mansion on the River Front, where he was said to have been concealed like a thief in an "Auger Hole". He later escaped to New York, then in possession of the British Army. At the close of the war, O'Dell is found in New Brunswick occupying a position in the local government there.

Dr. John Brognard was born in 1761, in France, and received his medical education in Paris. Entering the French Military Service he came to America with his corps under Lafayette during the Revolution, and continued in service to the close of the war. Not desiring to return to France he settled in Burlington, where he married Miss Sarah Smith, and gave himself to the pursuit of medical practice. He later removed to Black Horse, now Columbus, where he practiced until his death in 1823.

Dr. Daniel DeBeneville, born in 1753 in central Pennsylvania, was also of French ancestry. He received his medical education in Philadelphia and joined the Continental Army as a surgeon. He became distinguished in the service for his sympathy for wounded soldiers and his skill in caring for them. He is said to have been the perfect counterpart of Andrew Jackson, whose intimate friend he was.

After the war the doctor married and migrated to Moorestown. While in Moorestown he seems to have undergone a complete change of character. He became erratic, arrogant, and publicly profane. He manifested an absolute disbelief in God, and altogether became so objectionable that he lost all of his practice as well as his wife, who divorced him. He became penniless and sought refuge with his brother in Pennsylvania, where he died in 1828 of paralysis.

Dr. Edward Shippen, the son of Chief Justice Shippen, was born in 1758. He received his medical education under the distinguished Dr. Bond, and afterward studied abroad. He returned to this country in 1785 and married Elizabeth Footman, of Philadelphia. He settled in Pennsylvania in 1778 where he practiced medicine 7 years. In 1795 he came to Burlington, where he entered practice with Dr. William McIlvaine, whom he ultimately succeeded, and continued to practice until his death in 1809.

Dr. Henry Drake, born in 1773 in New Brunswick, was the son of Mr. James Drake at whose house the newly organized New Jersey Medical Society frequently met. Dr. Drake entered the practice of medicine about 1793. Tradition has it that he bore an unenviable reputation morally, though he was a man of talent and skill in his profession. It seems that he became a horse racer, a cock fighter, a notorious gambler and a hard drinker, and noted for his profanity. Henry Drake abandoned the practice of medicine, returned to New Brunswick, and became manager of his father's hotel. It is recorded that John Adams, Jefferson, Burr and other distinguished gentlemen when traveling between New York and Philadelphia frequently sought the comforts of his hostelry. Drake died at the early age of 44 and his remains are buried in Christ Churchyard, New Brunswick; no monument. "The years of the wicked shall be shortened."

The last physician of whom we shall speak is Dr. John H. Stokes, the son of Thomas Stokes, one of the first settlers of Burlington County. Dr. Stokes was born near Moorestown in 1764. After a good preliminary education, he studied medicine under Dr. Park, of Philadelphia, and later at the University of Pennsylvania. He was licensed to practice medicine in 1786 when only 22 years of age. He practiced thereafter for 30 years and was held in the highest esteem by all of his fellow countrymen. He was one of the first medical men to adopt Jenner's vaccination against smallpox, and after successfully vaccinating his infant daughter he permitted her to lie in bed with a patient afflicted with the disease—all to convince the ever-doubting laity and the yet suspicious profession of the efficacy of vaccination. According to Stackhouse: "He was the progenitor of a family of physicians that has continued to this day, honored by the profession, loved in the community, upright, Christian gentleman. May the tribe increase." Dr. Stokes died in 1817 at the age of 52.

ANEMIA IN GASTRO-INTESTINAL CARCINOMA

Thomas Fitz-Hugh, Jr., A.M., M.D.,
and
William T. Shell, Jr., M.D.,
Philadelphia, Pa.

W. J. Mayo (Am. Surg., 74:355, Sept., 1921), and more recently Alvarez and others (Arch. Surg., 15:402, Sept., 1927), have called attention to the severity of the anemia encountered in many cases of cecal carcinoma. In the hope of elucidating further the clinical and hematologic problems involved in this subject, it occurred to us that a statistical review of cases of gastro-intestinal carcinoma in the University of Pennsylvania Hospital might prove interesting. In the survey which follows we have directed attention particularly to the following considerations:

(1) What are the hematologic pictures found in gastro-intestinal carcinoma?

(2) Does the location of carcinoma in the gastro-intestinal tract bear a demonstrable relation to the degree of anemia?

(3) Is demonstrable hemorrhage an important cause of anemia in these cases?

(4) Is metastasis a factor in producing anemia?

(5) Is the duration of symptoms correlated with the degree of anemia?

(6) Are the size and shape of the growths important factors in anemia production?

(7) Are obstructive carcinomas more often associated with anemia than non-obstructive growths?

(8) Are any other causes of anemia in gastro-intestinal carcinoma, such as increased blood destruction or inadequate blood formation, factors in its production?

Case histories from the medical and surgical wards of the University Hospital form the basis of this study. Only cases of proved carcinoma are included; the proof being clear cut x-ray evidence, and surgical, biopsy, or autopsy findings with pathologic reports. In most instances there are both x-ray and surgical or autopsy data combined. Cases of carcinoma involving the digestive tract above the cardiac end of the stomach are not included. With these strictures in force, 103 cases of gastro-intestinal carcinoma were accepted as material for our study. This group includes 53 cases of gastric carcinoma; 3 cases of jejunal; 11 cases of cecal; 1 of the ascending colon; 5 of the transverse colon; 5 of the descending colon; 16 of the sigmoid and 9 of the rectum. In order to find 53 cases of gastric cancer the records were searched from 1927 back to 1923, a period of 4 years. To find 50 cases of carcinoma of the rest of the gastro-intestinal tract carried us back to 1910, a period of 17 years. This indicates, for a small group of cases, the relative frequency of the lesions mentioned. We cannot explain the exceedingly low incidence of ascending colon and hepatic flexure lesions and the relatively low incidence of rectal lesions of our series.

Table I (omitted from publication) is a summary of the significant data from which the subsequent tables are made. From these tables we may attempt an answer to our first question: what are the hematologic pictures found in gastro-intestinal carcinoma in general?

In the first place anemia is not marked when average red cell and hemoglobin figures of our series are considered. (Table III). From the strictly hematologic standpoint most of the cases with anemia present the so-called secondary picture. Very few have a color index of more than 1 and in none of these is the diagnosis of "primary pernicious anemia"

TABLE II

ANEMIA IN GASTRO-INTESTINAL CARCINOMA

Hemoglobin Readings

	High	Low	Av.	Cases		High	Low	Av.	Cases
In all cases:	99	19	66.1	103					
1. Without metastasis	99	19	66.3	69	With	99	26	64.9	34
2. Without hemorrhage	95	20	71.5	36	With	99	19	60.3	67
3. Without obstruction	96	20	64.1	72	With	99	19	70.8	31
4. Symptoms 6 Mo. or less	96	20	72.7	45	6 Mo.	99	19	60.1	55
5. Lesion—not large	96	26	68.2	48	Large	99	19	62.7	55
In all gastric cases:	99	19	64.8	52					
1. Without metastasis	99	19	63.5	35	With	90	43	65.8	18
2. Without hemorrhage	95	20	77.8	14	With	99	19	62.7	39
3. Without obstruction	96	20	64.1	40	With	99	19	65.7	13
4. Symptoms 6 Mo. or less	96	20	71.5	22	6 Mo.	99	19	60.8	30
5. Lesion—not large	96	42	70.8	13	Large	99	19	59.8	40
In all cecal cases:	81	26	52.5	11					
1. Without metastasis	81	50	61.5	6	With	68	28	41.8	5
2. Without hemorrhage	78	55	64	4	With	81	28	46	7
3. Without obstruction	81	26	52.5	11	With	none			
4. Symptoms 6 Mo. or less	68	55	61.5	2	6 Mo.	81	26	48.3	8
5. Lesion—not large	81	26	50.7	7	Large	68	32	55.7	4
In all other cases:	95	45	72.4	39					
1. Without metastasis	93	50	73.4	27	With	95	45	70	12
2. Without hemorrhage	93	45	72.7	18	With	95	50	72.2	21
3. Without obstruction	90	28	64.1	32	With	95	50	74.9	18
4. Symptoms 6 Mo. or less	95	50	75.2	21	6 Mo.	93	45	71.3	17
5. Lesion—not large	90	28	71.3	28	Large	95	50	75.9	11

TABLE III

HB. % & R.B.C. COUNTS IN CASES OF CARCINOMA OF THE G.-I. TRACT

R.B.C. in million	Fundus		Pylorus		Jejunum		Cecum		A.Colon		T.Colon		D.Colon		Sigmoid		Rectum	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1.000 - 1.499			1															
1.500 - 1.999																		
2.000 - 2.499		2																
2.500 - 2.999		1	1	1			1	1				1						
3.000 - 3.499	1	1	3				3	1	1						3			
3.500 - 3.999	4	4	4	1		1	1							1	1	1	1	1
4.000 - 4.499	3	2	5	1			2	1			2		1	1	4	2	2	1
4.500 - 4.999	9	1	3	1			1				1	1		1	3	1	3	
5.000 & over	1	1	1	1	1	1							1		1			
Total	18	12	18	5	1	2	8	3	1	0	3	2	2	3	12	4	6	2
HB. Per Cent																		
10 - 19		1																
20 - 29		1	1				2											
30 - 39		1	2					2										
40 - 49	1	1	4									1						
50 - 59	3	3	2	3			3		1					1	3		1	1
60 - 69	3	2	2				2				1			1	3	2	1	
70 - 79	1	2	4			2	1				1		1		3	1	3	
80 - 89	5	2	1	1				1			1	1	1	1	1			1
90 - 100	4		3		1										2	1	2	
Total	17	13	19	4	1	2	8	3	1	0	3	2	2	3	12	4	7	2

strikingly suggested. Leukocytosis of 12,000 or more is noted in 26% of our cases. There is no constant association between elevated leukocyte count and markedly depressed hemoglobin and red cell figures; the average hemoglobin and red cell count of the cases showing leukocytosis of 12,000 or more is—hemoglobin 65.1% and R.B.C. 4,120,000, which is hardly less than the average of the entire group. Leukocytosis is not correlated with metastasis or with chronic partial obstruction, but is to a certain extent associated with large growths rather than smaller ones.

Now we may discuss the data bearing on location of gastro-intestinal carcinoma in relation to anemia. From Table II it is obvious that the average hemoglobin in the 11 cecal cases is lower than any other group—namely 52.5%; with gastric next at 64.8%; and other cases next at 72.4%.

Demonstrable hemorrhage, either melena, hematemesis or laboratory finding of blood in stool or gastric contents is noted in 65% of our cases. The average hemoglobin of these 67 cases showing evidence of blood loss is 60.3%; which is more than 10% less hemoglobin than the remaining 36 cases without hemorrhage—whose average hemoglobin is 71.5%. There is an even more striking anemia associated with demonstrated blood loss in the cecal cases. In this group of 11 cases, 7 present evidence of hemorrhage and the average hemoglobin of these is 46%, whereas the 4 cecal cases without hemorrhage have an average hemoglobin of 64%. We, therefore, believe that blood loss is an important factor in the production of anemia and by this we mean constant slight blood loss rather than isolated gross hemorrhage which is uncommon in our series.

Metastasis does not seem to be a very important factor in producing anemia. The gastric cases without demonstrable metastases have a slightly lower hemoglobin (63.5%) than those with metastases (65.8%). The non-cecal non-gastric group shows only a trifling difference in hemoglobin figures when cases with metastases are compared with cases having no metastases. The cecal cases, however, indicate that here at least metastasis is correlated with a marked drop in hemoglobin. The 5 cases of cecal carcinoma with metastases have an average hemoglobin of 41.8% in constrast to 61.5% for the 6 cases of non-metastatic cecal cancer.

This fact deserves some discussion. In the first place about 50% of our cases of cecal carcinoma show metastases; which is a higher percentage of metastasis than occurs in any other of our groups. This is not the usual

statement regarding cecal carcinoma, which is said to metastasize very slowly and much less frequently than gastric cancer. We shall take this matter up again in connection with the time element as a factor in production of anemia.

The average hemoglobin of all cases with metastases is 64.9% and of all non-metastatic cases is 66.3%. These statistics are inherently erroneous in that autopsy was not performed in all cases and many metastatic lesions must have gone unrecognized. In 33% of our cases metastasis is demonstrated.

This brings us to the question of duration of symptoms in relation to degree of anemia. Here we find 55 cases with symptoms of more than 6 months' duration showing an average hemoglobin of 60.1%; while 45 cases with symptoms of 6 months or less show an average hemoglobin of 72.7%. Again in the cecal cases the potency of the time factor in producing anemia seems even more obvious. The cecal cases of symptom-duration of more than 6 months (8 cases) have an average hemoglobin of 48.3%; while those of 6 months or less have an average hemoglobin of 61.5%. Similarly, the gastric cases show in the "more-than 6 months' group" an average of 11% less hemoglobin than in the "less-than 6 months' group".

Of course duration of symptoms is not an adequate index of duration of the malignant lesion. A rapidly growing neoplasm would probably produce symptoms sooner than a slow-growing one in the same location. Furthermore, a lesion so situated as to produce obstruction quickly would give symptoms sooner than one growing at an equal pace in a location not easily obstructed. Finally, there is the added difficulty inherent in attempting to guess what effect a precancerous lesion may have had on both symptoms and degree of anemia prior to the actual onset of malignancy.

Our next question dealing with size and shape of cancerous growths in relation to anemia production cannot be adequately investigated in our cases because of insufficient description and measurements of the tumors in the records. Lesions described as "large" and "larger than a walnut" are noted in 52 cases with an average hemoglobin of 64.1%. The rest of the cases (51) with "small" or undescribed lesions have an average hemoglobin of 68.4%. In the gastric group, however, the cases with "large" lesions have an average hemoglobin of 59.8%, whereas, those with small or undescribed lesions have an average hemoglobin of 70.8%.

Obstructive carcinoma (31 cases) showed higher hemoglobin figures (by 6.7%) than non-obstructive carcinomas (72 cases). We presume this is due to dehydration in the obstructive cases. In any event obstruction does not produce anemia as judged by these data.

Finally, we could obtain no evidence of aplasia of blood formation in any of our cases. Nor could we find adequate proof of blood destruction (hemolysis) as a potent factor. The only suggestions along this line are found in our Van den Bergh tests. This test is recorded in 10 cases. Eliminating from this group of 10 cases all with normal Van den Berghs (7 cases) and all with obstructive jaundice (1 case), we find 2 cases showing abnormal Van den Bergh reactions. One of these is moderately anemic with a very high indirect reaction while the other is severely anemic with a slightly elevated indirect reaction.

Conclusions

(1) Our findings agree with others that carcinoma of the cecum presents on the average, a more severe anemia than carcinoma elsewhere in the gastro-intestinal tract.

(2) Carcinoma of the stomach comes next.

(3) Neither gastro-intestinal obstruction nor blood destruction (hemolysis) is a potent cause of anemia in carcinoma of the gastro-intestinal tract. However, the possibility of blood destruction (hemolysis) is suggested in 2 cases.

(4) We believe that simple mechanical causes are at work in the production of anemia in gastro-intestinal carcinoma. We believe that gradual blood loss is the chief cause of the anemia and in support of this we would point out:

(a) That gastric and cecal carcinomas are probably more subjected to friction and ulceration, and in the latter group to bacterial

attack as well. than carcinomas elsewhere in the gastro-intestinal tract.

(b) The time element, although difficult to determine accurately, is indicated as an important factor in anemia production.

(c) Demonstration of blood loss as a cause of anemia in our series is significant. More frequent and careful stool examinations (both microscopic and chemical) in these cases are clearly indicated.

(d) The rôle of metastasis *per se* is of little importance. The apparent effect of metastasis in anemia production in our cases of cecal carcinoma is probably to be viewed merely as emphasizing the importance of the time factor, because of the fact that cecal carcinoma is generally said to be slow in metastasizing.

(e) It may be as Alvarez contends that the size of the growth, or rather its surface area, is of great importance. Our statistics are inadequate concerning this point, but so far as they go do not lend much support to his thesis. It would seem to us that a small growth with an ulcerated area would be more likely to produce anemia than a large one without ulceration. The other contention of Alvarez is that a large carcinomatous surface area in contact with a concentrated bacterial medium such as obtains in cecal growths is a factor of great importance in producing anemia. The only item of possible significance in our small series concerning this point is to be found in the cases with leukocytosis. If bacterial invasion of a carcinoma might be expected to produce leukocytosis then, according to Alvarez's contention, anemia and leukocytosis should be correlated. This is not the case in our series. Rather than put this forward as an argument against Alvarez's contention we would assume that infection of the kind he has in mind does not produce leukocytosis but may produce anemia.

Finally, our conclusions based on these data, are that the anemia of gastro-intestinal carcinoma is determined chiefly by chronic blood loss. In 2 cases, however, an additional factor, namely, hemolysis is suggested. This factor demands further investigation.

VOLUNTARY MUTISM

Michael Vinciguerra, M.D.,
Elizabeth, N. J.

Mutism is absence of speech. When it is of psychogenic origin, and especially when present in young children, it arouses the interest not only of the layman but also of the physician. The report of a case of this type, occurring in childhood, should be of value, as voluntary mutism is seldom seen in the very young, and it is interesting to trace the psycho-emotional mechanisms which have been operative.

Report of Case

During the early part of December, 1927, Alfred M., 7 years old, was brought to my clinic with a letter from his teacher, stating that in the 2 years he had been in her classroom he had never, to her knowledge, spoken a word. It was also reported that he did not talk when he was in the kindergarten. Nevertheless, the teacher considered his intelligence probably above the average, as his written work was almost always perfect in subject matter, and his penmanship and number work excellent. She wrote: "In playing games about the room he is always noticeably a good sport, and seems to put every bit of himself into them. This quality is also prevalent in his studies." The teacher had detained him after school, and worked in every conceivable way to induce him to read orally; she had also sent him on errands to other teachers, but, though he seemed delighted to go, he merely pointed to the object for which he had been sent, instead of asking for it.

Inquiry into Alfred's history proved him to have been a full-term baby, normally delivered. He walked at 14 months; his mother did not remember when he began to talk. He had a convulsive seizure when he was 2 years old, but was conscious before the doctor arrived and never had another attack. There was no history of diplopia nor of any acute illness. The mother was healthy but nervous and excitable, and unequal to disciplining her

children, while the father appeared to take little interest in his family.

Physical examination showed Alfred to be well built and well nourished, but of apathetic appearance and very phlegmatic for his age. He walked slowly and had a tendency to lean his head toward the left shoulder. His pupils were large and expressionless; occasionally they would brighten up. He answered no questions, showed marked negativism to command, and executed orders in a slow, mechanical way, with every evidence of retarded cerebration. No abnormal findings resulted from either the physical or the neurologic examination.

When questioned with regard to his mutism, the mother said that he talked at home, but of late very little. She had also noticed that when he grew irritable he stuttered, and that he preferred talking and playing with children younger than himself. His particular chum was only 4 or 5 years old.

On the boy's next visit to me, his mother stated that on the previous day he had lost himself in a large department store. She had found him at a police station, where she was told that he would neither give any information about himself nor answer the questions put to him by the police. He looked much brighter on this occasion than when I had seen him previously, but he still walked slowly and showed the same tendency as before to lean his head toward his left shoulder as he advanced. It was evident that cerebration was still slow, as it was necessary to repeat a command 3 times before he would slowly execute the desired action. He copied with accuracy the printing on a prescription blank, but refused to answer questions, to open his mouth, or to whistle. When asked to open his mouth, he would tighten his lips; even when a direct command was given the lips remained immobile.

After this visit I had the patient come to my office daily. Each succeeding day he became progressively more animated and his mental and physical reactions less retarded. By the end of the second week he was alert and very willing to perform what was asked of him. He was quick and accurate at addition and subtraction, and showed good judgment in writing answers to the oral and written questions put to him. He drew pictures, both from memory and from objects put before him, which bore remarkable resemblance to the originals. In short, except for his mutism, he gave the impression of intelligence above the average. His mother, however, told me about this time that he was speaking less and less at home, and that he had remarked: "That doctor doesn't know much."

Up to this time my effort had been to gain the patient's confidence. He came from out of town, and I treated him as a welcome guest. I showed great interest in all his doings, praising his work, sometimes in the presence of others, and often rewarding his success with gifts of candy, fruit, toys, money, etc. But his taciturnity still persisted, his lips seeming almost hermetically sealed. I now felt that it was time to change my tactics, and on his next visit treated him with reserved kindness. I told him that he was a nice boy, but that because he would not speak he would have to be sent away—away from everybody he knew, even his mother—until he was willing to behave like other boys. I said also that his mother, the school nurse, his teacher and the principal were all tired of trying to combat his stubbornness, and that a police commissioner was waiting for my decision as to his being sent away. The boy listened with surprised attention, looked at his mother, and then tears filled his eyes and ran down his cheeks. I asked him once more to open his mouth, which he refused to do. I then closed his nostrils and forced a tongue depressor into his mouth. He resisted at first, then suddenly began to yell, shouting: "Let me go! Let me go!" I at once assured him that it would not be necessary to send him away. I asked my colleague, Dr. N. L. Wilson, to come into my office and display his police badge; I addressed him as "Mr. Police Commissioner", and told him in the presence of the boy that it would not be necessary to send Alfred away, as he had shown me that he was perfectly able to speak. There was some conversation between Alfred and the doctor, the latter encouraging the boy while sustaining the character of an authoritative but sympa-

thetic police officer. After this, the boy read aloud from his primer. I noticed that his 2 upper front teeth were out; he lisped and was not able to properly pronounce "g" or "th". I asked him why he was unwilling to talk, to which he replied: "I don't know; the boys make fun of me."

In spite of the success obtained in this interview, I was informed that in school Alfred still remained silent. I called at the office of the principal, and by using a stick as a tongue depressor the boy was again made to speak, in the presence of the nurse, his teacher, the principal and his secretary. As notwithstanding this experience he remained silent in class, I again called at the school and made him speak in the classroom. After this he continued to do well. At a meeting of the Clinical Society, before 50 or 60 doctors, he read aloud and recited a Christmas poem which he had learned.

More advanced school work was now advised for Alfred, and letters from his teacher show his continued progress. On January 3, 1928, she writes:

"Alfred has been doing very nicely, and reads and recites for Mr. H., the nurse and myself quite willingly." On the twentieth of the same month she continues: "He reads very willingly and rather eagerly for the rest of the children. I have very little difficulty in getting him to read loudly. He likes to show his classmates his ability to read stories which they have not yet started." About 4 months later, April 27, another teacher writes: "Alfred has been in the 2A Class since January 23, since which time he has progressed so that now he is in the upper part of the middle group. He volunteers quite readily in recitation work; he prompts other children who do not know something. Since he has been with children of his own age his attitude and manner have changed; his facial expression is happier. This, and his neater appearance, have been remarked by other teachers."

It was subsequently reported that he had taken oral part in the school play, and 7 months later we find him in Class 3B, skipping 2 years' work. A letter from his school principal to the clinic nurse, under date of September 5, says:

"Alfred M., who has been attending the psychiatric clinic, has made splendid progress in scholarship. He was left back in the first grade last September, but was put on in the second grade about the middle of the year. He made such rapid progress in the second year that he was one of the better pupils by the close of the term. In addition, his appearance changed remarkably, not only in the neatness of dress but also in the changed facial expression. His stubbornness and refusal to talk entirely disappeared."

Comment

Up to the time that Alfred M. entered school, he had mingled very little with other children, as his home was on the outskirts of the village, and somewhat isolated. On coming into close contact with a large number of other boys, particularly in the classroom, he became aware that he could not speak as well as the others; that his stuttering speech attracted their attention, and was ridiculed by some of them. The realization of this aroused in him 2 unpleasant feelings: a sense of inferiority, and anger. The feeling of inferiority caused an uncomfortable autonomic tension, stimulating the proficient mechanism to react in a manner to relieve the boy's discomfort. The form taken by this reaction was a neutralizing of the feeling of inferiority by inciting the organism to excel in some direction where no handicap existed. Thus, the discomfort caused by realization of his speech defect was relieved by the compensating self-satisfaction aroused by his excellent work in writing, drawing, arithmetic, etc.

While the sense of inferiority was relieved by the attempt to excel in directions not requiring the effort of speech, the uncomfortable feeling of anger was relieved by elimination of the cause. The cause was the ridicule he received because of his stuttering; he was not able to overcome his speech defect, so he remained mute. Anger at being ridiculed might have led him into fights with his mates, and to further ridicule. But in such conflicts he would probably have got the worst of it; and so by trial and error he came to realize that the most agreeable way out of his difficulty would be to avoid talking in the presence

of boys who were as big or bigger than he. With smaller children he was at ease, for he felt sure he could get the better of them.

His apathy, lethargy, "loss of will power", lack of energy and lowered muscle tone were symptoms of his failure to fully compensate for his feeling of inferiority, and his unconscious submission to unsurmountable environmental difficulties. The lateral inclination of his head was also a sign of subconscious dissent. Darwin and others have shown that it is a survival of the movement with which an infant refuses the proffered breast.

In putting an end to his mutism several factors were operative. He was aware that we had heard him speak, and knew that he could talk if he chose. He realized that if he remained silent there was worse discomfort ahead of him, in being sent away from his home and family. Finally, the interest and praise of the strangers he had been meeting encouraged him to new effort.

The case would appear to have been one of voluntary mutism following emotional trauma in a sensitive organism. The boy could not stand being ridiculed, and developed a defensive reaction to prevent future emotional discomfort. He tried, whether consciously or subconsciously, or both, to adjust himself to an unfavorable environment by avoiding conversation with those of his own age or older, and by seeking younger companionship, in which he felt at ease.

NEWER METHODS OF THERAPY IN PNEUMONIA

Horace S. Baldwin, M.D.,
New York City

The conception of pneumonia as primarily an infectious disease has resulted in considerable advance in methods of therapy and in a more intelligent comprehension of the course and prognosis. The bacteriology of pneumonia when ascertained will more and more determine the method of therapy and aid the clinician in his handling of the case. Recently, as the result of over 5 years' work at Bellevue Hospital in studying pneumonia from the bacteriologic viewpoint an analysis of 2000 cases was reported. The following table shows the distribution of cases in relation to the bacteriologic classification:

TABLE I

BACTERIOLOGIC CLASSIFICATION OF 2000 CASES OF LOBAR PNEUMONIA

Bacteria	Cases	Percentage of Incidence
Pneumococcus	1913	95.65
Hemolytic streptococcus	76	3.8
Friedlander bacillus	8	0.4
Influenza bacillus	1	0.05
Staphylococcus aureus	2	0.1
Total	2000	

It will be immediately observed that the great majority of the cases of pneumonia are due to the pneumococcus. Table II shows the distribution of cases per type of pneumococcus involved.

TABLE II

INCIDENCE BY TYPE IN 1913 CASES OF PNEUMOCOCCIC PNEUMONIA

Type of Pneumococcus	Cases	Percentage of Incidence
I	644	33.6
II	368	19.1
III	268	13.3
IV	633	33.1

The mortality in respect to the various types of pneumococcus is shown in Table III.

TABLE III

DEATH RATE ACCORDING TO TYPE IN PNEUMOCOCCIC PNEUMONIA

(No Specific Treatment)

Type of Pneumococcus	Cases	Died	Per Cent.
I	352	73	20.7
II	221	93	42.0
III	161	67	41.6
IV	373	109	29.2
	1107	342	30.8

Closely connected with mortality is the factor of invasion of the blood stream by the organism. In a series of cases of pneumococcus pneumonia studied from the standpoint of blood cultures it was found that the presence of a positive blood culture was usually of bad prognostic significance. The following charts show the death rate in cases with sterile blood cultures, in cases with positive blood cultures, and the relation of bacteria to death rate in pneumonia.

TABLE IV

Type of Pneumococcus	Death Rate in Cases with Sterile Blood Cultures			Death Rate in Cases with Positive Blood Cultures		
	Cases.	Fatal	Per Cent	Cases	Fatal	Per Cent
I	92	14	15.2	23	24	72.7
II	47	8	16.2	31	28	90.3
III	26	11	41.5	10	8	80.0
IV	75	12	16.0	15	14	93.3
	240	45	18.7	89	74	83.1

The result of this work has been to emphasize the fact that bacteriemia is associated with death in a large percentage of cases of pneumonia. If, on the other hand, the development of immune bodies in the serum of patients with pneumonia is studied it will be seen that when patients develop in their blood stream demonstrable amounts of immune substance the chances for recovery are good. Also, the presence of immune bodies in the blood is very rarely associated with the coincidental presence of bacteria. Apparently, the two phenomena are antagonistic. Of 20 patients studied at Bellevue Hospital who showed protective or immune bodies in the blood stream at some time during the course of the disease, only 3 died.

In view of the intimate relationship between recovery from pneumonia and the appearance of immune bodies in the patient's blood, efforts have been made to develop a specific therapy in pneumonia. This consists essentially in the introduction of various immune bodies into the pneumonic patient with the purpose of assisting in the struggle against the specific organism involved.

So far the production of immune bodies in an effective concentration has been only possible against pneumococcus Type I and Type II. The concentration obtained against pneumococcus Type III is too small for any practical use—and up to the present time the Group IV pneumococci, composed of all pneumonias which do not have the specific immune reactions of Type I, Type II or Type III, is not sufficiently subdivided to speak definitely of the possibility or probability that immune sera will be elaborated for these heterogeneous organisms.

At the present time the work of Felton, at Harvard, seems very promising. This investigator has been able to concentrate immune substances from immune serum of pneumococcus Type I and pneumococcus Type II in a form that makes its use of considerable more practical significance than the whole immune serum that has been hitherto used. The advantages of the concentrated pneumococcus antibody prepared according to Felton's method are principally (1) the elimination of most of the horse serum, (2) the smaller amounts necessary to give, and consequent greater facility of administration, and (3) the greater concentration which provides for the administration of larger amounts of antibody than is found in the unaltered immune horse serum.

This concentrate has been studied in its clinical application to the treatment of pneumococcus Type I and pneumococcus Type II pneumonia at 4 hospitals during the past few years, namely Boston City Hospital, Bellevue Hospital, Harlem Hospital and The New York Hospital under the general supervision of The Influenza Commission of which Dr. W. H. Park, of the New York City Board of Health, and Dr. Rosenau, of New York University, are members. It is expected that before long it will be offered for general distribution by some of the commercial biologic firms.

In brief, the use of these concentrates in pneumococcus Type I pneumonia when given early and in sufficient amounts is associated with an early subsidence of the fever and often a sterilization of the blood stream when bacteriemia is present. In carefully controlled therapeutic experiments at these hospitals a definite reduction of the death rate in pneumococcus Type I pneumonia has resulted from its use.

In pneumococcus Type II pneumonia, which is characterized by extreme prostration, an early tendency to bacteriemia and a heavy death rate, use of the concentrate has not been followed by such spectacular clinical improvement. However, in all these hospitals, a reduction in mortality has been associated with its use and very striking cases have been seen where the blood culture, positive before its use, has become sterile following its administration, and recovery has resulted.

Therefore, when it is considered that pneumococcus Type I and pneumococcus Type II

pneumonia comprise about 42% of all pneumococcus pneumonias, it will become increasingly important to know the bacteriology of each case of pneumonia as the development of these specific antibody solutions arrive at the point where there is a supply sufficient for general use. A system of antibody units has been elaborated in an effort to standardize the preparation of these solutions. In our experience the best results are obtained when 50,000 to 100,000 units of antibody are given within the first 24 hours, and continued until definite improvement is gained. These amounts of antibody units when whole immune serum is used necessitate the administration of 500-1000 c.c. of serum. With the concentrated solutions that have been elaborated, this amount of antibody can be delivered into the blood stream by the administration of 50-100 c.c. of the solution in divided doses spread throughout the day. The result is that the method will be convenient and practical and with the added advantage that very few cases of serum sickness occur after its use.

Oxygen Therapy

In addition to the development of specific means of attacking the infection, an important advance has recently been made in an attempt to spare the patient the increased effort and harmful systemic reaction associated with anoxemia in pneumonia. Oxygen therapy until recently has been a last resort measure, generally looked upon by the laity as a signal of despair and by the medical adviser as an acknowledgment of defeat. With development of the portable oxygen tent and its more general use we are gradually learning that oxygen therapy while by no means a producer of miracles, is in selected cases of great therapeutic help and at times a life saver. With the oxygen tent elaborated by Roth and Barach and procurable through Warren E. Collins, of Boston, it is possible to have the patient in an atmosphere of 40-50% oxygen as contrasted with the 20% found in the atmosphere. Using the old fashioned cone in front of the patient, it is possible to raise the oxygen concentration of the inspired air very little, scarcely an appreciable amount. With the intranasal catheter the oxygen concentration at best is only about 30% and the discomfort associated with its use largely detracts from this increase in concentration. With the portable oxygen tent, commercial oxygen is used from a tank containing 200 cu. ft. of oxygen under high pressure, namely 2000 lb. per square inch. By means of a reducing valve the oxygen is allowed to enter the tent at a rate of 4-8 litres per minute, depending upon the concentration of oxygen desired. Usually 1 tank has sufficient oxygen to last from 15-24 hours. The tent is provided with non-inflammable window and top through which the patient may look out, and is sufficiently large to almost eliminate the feeling of being cramped in. The air cooled by passage through a cylinder containing ice and to which oxygen has been added is delivered into the tent by means of a perforated tripod suspended in front of the patient. By means of a fan this air is withdrawn from the tent and then passed through another cylinder containing soda lime in order to withdraw the carbon dioxide expired by the patient. The mechanics of the tent and associated apparatus are not complicated and can be administered by an intelligent nurse.

The indications for the use of oxygen therapy have been described by Barach, Binger and other investigators. In my experience, oxygen therapy finds its greatest helpfulness in the old or seriously debilitated patient whose respiratory rate is shallow, becoming rapid and whose color is becoming cyanotic. In these patients the use of the oxygen tent and the regulation of the oxygen content to 40-50% will often diminish markedly respiratory and cardiac strain until he has developed his immune reaction to the infectious agent primarily concerned in his disease. In these cases oxygen should be used fairly early in the course of the disease, before pulmonary edema has occurred and the situation calls for a miracle to produce recovery. Its use should be continued until the respiratory rate has fallen to about 22 per minute, until cyanosis has disappeared and until its withdrawal is not accompanied by an increase in the respiratory rate. It is wise not to withdraw it completely but to gradually accustom the patient to the lowered atmospheric oxygen content by keeping the tent on for 2 hours and off for

45 minutes at first and then gradually increasing the period of freedom from its use, until the respiratory rate and the patient's general condition are stabilized in the atmospheric air.

In conclusion, it may be stated that in the conduct of the case of pneumonia one of the first essentials is a knowledge of the type of organism responsible for the disease. This may be obtained by the mouse typing of sputum coughed up from the patient's bronchial tree. An initial blood culture is helpful in determining the severity of the infection and is likewise helpful when repeated during the course of the disease. Specific therapy by the use of concentrates of immune serum promises to be helpful in pneumococcus Type I and Type II pneumonia when administered early in the course of the disease and in adequate amounts. Oxygen therapy with the improvement in technic accomplished through development of the tent has been placed on a rational basis and when used intelligently in selected cases is often of distinct therapeutic advantage.

GUILD COÖPERATION BETWEEN PRESCRIPTION OPTICIAN AND THE EYE PHYSICIAN

J. G. Reiss

Newark, N. J.

(Address by President of the Guild of Prescription Opticians of America, before the Eye, Ear, Nose and Throat Section of The Academy of Medicine of Northern New Jersey, January 14, 1929)

When your chairman invited me to discuss with you the activities of the Guild of Prescription Opticians of America, I accepted with a great deal of pleasure. The Guild is anxious to have eye-physicians become better acquainted with its activities and to understand more thoroughly how our endeavors are correlating the best interests of both eye-physicians and Guild members. I deem it a great privilege to meet with you and trust the message I shall deliver will result in that thorough understanding of the Guild's purposes and ambitions which is so necessary to the welfare, standing, and future of our two groups.

In order that your knowledge of the Guild may be complete, I should like to give you some idea of the structure of our organization. In England, many centuries ago, men who were skilled leaders in a particular line of endeavor banded together to promote and improve their professions. We followed the idea of the old Craft Guilds. About 3 years ago, a group of 10 or 12 dispensing opticians from various parts of this country were invited to meet with the Philadelphia Guild, which was then functioning locally, for the purpose of forming a National Guild. From this small nucleus grew the present organization which is the Guild of Prescription Opticians of America, with a sphere of influence more than national. Our membership extends from the Atlantic to the Pacific, includes many cities in Canada, and we have established friendly and reciprocal relations with a like organization in Great Britain whose problems and aims are similar to our own.

The Guild is today recognized as a service organization, and its members are committed to a program of ethical practices. Before an applicant for membership may be considered, he must prove that he has conformed to the provisions of a resolution adopted in 1927, which reads as follows: "That, in admitting individuals to membership, there shall be a stipulation that the concern with which the individual has been connected shall have been known to have followed a program acceptable to the Guild for a period of at least 2 years prior to the time of admission to membership." The purpose of this resolution is obvious. It is possible that a firm may desire to derive the benefits of membership in our organization and, to do so, may claim to be an exclusively dispensing house when such is not the case. To guard against this, the probation period of 2 years is required. When this regulation has been complied with, the applicant must submit himself to the strictest scrutiny, by the Board of Directors, as to his integrity and honesty of purpose. He is then requested to subscribe to our Code of Ethics. This code is the key to our organization and I should like to bring it to your attention.

CODE

My business standards shall have in them a note of sympathy for all humanity.

My business dealings and ambitions shall always cause me to take into consideration my highest duties as a member of society.

In every position in business life, in every responsibility that comes before me, my chief thought shall be to fill that responsibility and discharge that duty, so that when I have ended each of them I shall have lifted the level of human ideals and achievements a little higher than I found them. In view of this, it is my duty as a member of the Guild of Prescription Opticians of America:

(1) To consider my vocation worthy, and as affording me distinct opportunity to serve society.

(2) To improve myself, increase my efficiency and enlarge my service.

(3) To realize as a business man ambitious to succeed, that I must first be an ethical man, and I wish no success that is not founded on the highest plane of justice and fairness.

(4) To hold that the exchange of my goods, my services, and my ideas for profit are legitimate and ethical, provided that all parties in the exchange are benefited thereby.

(5) To use my best endeavors to elevate the standards of the optical business and so to conduct my own business that other opticians may find it wise, profitable and conducive to happiness to emulate my example.

(6) To conduct my business in such manner that I may give a perfect service equal to or even better than my competitor, and when in doubt to give added service beyond the strict measure of debt or obligation.

(7) Realizing that a patient's interest is best served by having an eye-physician prescribe, I shall confine my efforts solely to dispensing and selling glasses only on prescription, and at all times endeavor in every way to make quality the fundamental thought in serving patients.

(8) To do everything possible toward the conservation of human eye-sight—using my best efforts in coöperation with the eye-physician.

(9) To make myself worthy of the confidence placed in me by the Guild of Prescription Opticians of America and to do everything possible to be worthy of membership in the Guild.

(10) To obligate myself to take no unfair advantage of a competitor, nor consider personal success legitimate or ethical which is secured by taking unfair advantage of certain opportunities that are absolutely denied others, nor will I take advantage of opportunites to achieve material success that others will not take because of the questionable morality involved.

(11) To not interfere in any way with employees of my competitors.

(12) Finally, I believe in the universality of the Golden Rule—"All things whatsoever ye would that men should do unto you, do ye unto them."

Any applicant who will adhere strictly to this code is considered worthy of membership, and is loaned the Guild Emblem. This emblem is an assurance to the eye-physician and the public that the member displaying it, is in duty bound to protect the public and the eye-physician against misrepresentation, unethical practices and inferior quality. No form of deception or misleading information in dealings between a guild optician and the public is countenanced. Should there be a deviation from the strict rules laid down by the Guild, or should a member be charged with unethical conduct (and I am frank to state we have had several such cases) the pertinent facts are placed before the Board of Directors for investigation and judgment. If found guilty, resignation of the offending member and return of the emblem is demanded.

With these safe-guards to membership, the Guild is constantly endeavoring to raise the standards of business and improve service to the eye-physician and his patient. Our activities are broad and varied. Among other things, we have found the Guild to be an instrument for enlarging the practice of the eye-physician. The ethics of your profession prohibit the use of anything in the nature of advertising. The Guild members can and do advertise, spending thousands of dollars annually, individually and in groups. Considering at all times the patients' welfare, an extensive advertising campaign is carried on by

the members of our organization to educate the public to the benefits of combined service of the eye-physician and guild member. The eye-physician certainly cannot but benefit with us. The Guild, however, goes further in its educational program. Realizing that the efficiency of a prescription depends largely upon the accuracy and fit of the glasses, the organization uses every means within its power to educate its own members as to policy, procedure, methods of grinding better lenses, and improving service and quality. For, after all, results to patients are our first consideration, for only by this combined eye-physician and guild member service, honestly administered, do we all profit. The prescriber, no matter how perfect his diagnosis, is helpless if his prescription falls into the hands of an incompetent or unscrupulous optician. A prescription in the hands of the Guild member is safe for oculist and patient. There is absolutely no substitution, nor will there be any derogatory insinuations against the doctor as happens frequently where a prescription is left to the mercy of a non-medical eye-examiner.

Try as we might, we have not as yet been completely successful in educating the public as to the meaning of the terms oculist, optician and optometrist. This is due largely to the fact that the optometrists are using the title "Doctor". The implication to the layman can mean but one thing—that the individual using this title is a medical man. It seems to me this is a matter for the medical societies to look into and determine whether or not this title is rightfully applied. This confusion caused the Guild, with the approval of Dr. Edward Jackson, of Denver, who was present as one of our honorary members, to coin the term "Eye Physician" to be used by us instead of oculist. This suggests more accurately the medical eye specialist, and has no similarity to optician, optometrist, or "optimist", as I have heard patients say. Since adoption of this term, we have found it much easier to explain to the patient the difference between the so-called doctor and the honest-to-goodness "Eye-Physician".

The matter of service and what constitutes service in our business is also a serious consideration with the Guild. In every Guild establishment there must be maintained an organization competent to handle any contingency. This is a bigger problem than appears on the surface. It necessitates a well equipped grinding laboratory, an extensive stock not only of materials from which lenses are made, but also of frames and mountings. The changing of style trend compels us to keep on hand an enormous assortment of all types, and all sizes and measurements in each type. Naturally this requires a large investment.

Our service does not end with the sale of glasses; the sale is really the beginning. Glasses must be kept in constant adjustment and alignment. Speaking for my own establishment, I have individual patients call as many as 20 times in a year. We are glad to render this service, but to do so we must employ competent men for this purpose. On a busy day, I have had as many as 100 adjustments for which the patients were not charged one penny. What a lucrative business this would be could we charge for "an office call" as you doctors do. We should also like doctors to realize that most Guild establishments must have thousands of dollars invested whether they fill one prescription a day or a hundred. Like the Telephone Company or any other public utility, we must be ready always to care for any emergency, if we are to maintain the service which the doctors themselves demand. Our men, both in the store and in the laboratories, must be highly trained and skilled. Any others would not be acceptable to you nor would they satisfy us. Speaking again of my own establishment, the men I employ have been trained in my service for years and have learned Guild requirements. They are taught Guild methods, practice them, and are enthusiastic about Guild service. My establishment is typical, and I believe every Guild optician endeavors to manage his business along the lines our organization demands. It has not been an easy matter to bring the Guild up to its present standing. We have in the past and will continue in the future to do our utmost to cooperate with you. We believe you need our support, but we also need yours. We cannot

fight this battle alone, for it is a battle, and coordinated effort is required to win it.

We are confronted with some conditions in the west which I should like to bring to your attention. For example, in the city of Chicago with a population of 5,000,000 people there are 340 eye-physicians. We have but 1 Guild member in Chicago, and he informs us that he is receiving support and coöperation from only 10 physicians. The city of Seattle has 35 eye-physicians, only 3 of whom are sending their work to our member in that city. Most of the doctors in those cities send their patients to so-called Wholesale Dispensers, who rebate to the doctor the difference between the so-called wholesale price and the price charged to the patient. When he does this sort of thing, a doctor is unfair to his patient and to his profession. He could not take the time, and if he could, he has neither the training, the equipment, nor in most cases the will, to give the patient the service to which he is rightfully entitled. Nor, except in rare instances, can he procure the same quality of lenses as are produced in a strictly dispensing shop, where lenses are made one at a time with careful precision. I do not deny that we can purchase ready made, quality-produced, factory lenses at a lower cost than we can make them in our own shop, but would you be satisfied to trust your prescription to second or third quality lenses, defective and lacking in accuracy?

These conditions in Chicago and Seattle are also existent in other large cities through the middle and far west. Many eye-physicians in those cities will not support our members because they wish to share in the profits of the glasses which they prescribe. This cannot be and is not done in a Guild establishment.

This state of affairs to which I have referred brings me to a situation which has caused considerable comment. I refer to an article written by Dr. LaMotte, of Wilmington, Delaware, and published in a recent number of the Ophthalmic Journal, which has done our organization an injustice, and I shall take this occasion to set the matter right. I might mention here that our Secretary called on Dr. LaMotte after this article appeared and received a promise from him that he would write another article to be published in the Journal, correcting the erroneous impression his first article has caused, and I have no doubt this promise will be fulfilled very shortly.

First, I shall read you Dr. LaMotte's article.

To the Editor: A number of references to the Guild of Prescription Opticians appearing in the American Journal of Ophthalmology have been in commendation of said organization. In an editorial in Volume 11, No. 2, page 150, it is stated that the Guild 'Has gone on record as pledged to refuse to test eyes and is undertaking to refer persons desiring eye examinations to an eye-physician. If this idea is correct, this Guild deserves the support of the medical profession. In Buffalo a group of physicians met with the leading opticians of that city and declared their intention to send prescriptions only to those who agreed to dispense solely. Judging from such articles, and after reading the Code of Ethics of the Guild, I believe that the writers were under the same impression I was, that no member was supposed to refract and that he might even be pledged not to. Their application for membership reads: "We hereby make application for membership in the Guild of Prescription Opticians of America, Inc. We are dispensing opticians and do not examine eyes for glasses. If admitted to membership, we agree to abide by the constitution and by-laws of the Guild and such amendments as shall be enacted from time to time hereafter." I have in my possession a letter in the following terms: "In the application for membership you have read the words 'I do not examine eyes for glasses.' The Board of Directors does not put a strictly literal interpretation upon this clause, because they know there are men, situated throughout the United States, who for some legitimate reason or other are of necessity compelled to test eyes. In such cases, where it is not possible to get your customers to consult an oculist, and he would get into the hands of others, we must overlook these words, 'I do not examine eyes for glasses'. But in so doing, we ask that spherical lenses only be supplied and the prac-

tice be discouraged as much as possible." This is written on a letter head under "Guild of Prescription Opticians of America, Inc." and is signed Harry S. Shimwell, Secretary.

If the Guild wishes to admit to membership those who are compelled to test eyes it would seem that this should be clearly stated in some way, so that we should not be under any misconception. It would seem that "Do not examine eyes for glasses" means but one thing.

(Signed) W. O. LaMotte,
Wilmington, Delaware.

The statement "I do not examine eyes for glasses" was in our original application and still remains there. When the Guild was in its formative state we had to have the influence and prestige of the foremost optical establishments in the country in order to make our organization effective. We desired to number among our members a certain Chicago firm, one of the largest in the country with an old and established reputation. Wishing to be absolutely honest, this firm along with several others in large western cities stated the conditions I have described regarding the lack of physicians' coöperation and said they could not conform if a strict interpretation were placed upon this particular clause. The situation was discussed by our Board of Directors and realizing that only by making our organization effective and nationally representative could we hope to remedy those conditions, our Secretary was instructed to write to these 2 or 3 firms the letter which you have just heard quoted in Dr. LaMotte's article.

It may interest you to know that the results obtained are justifying our stand and conditions which we would have been powerless to control had we acted otherwise are rapidly clearing up. Since the formation of the Guild there has been a marked increase throughout the country in friendly coöperation between the ophthalmic branch of medicine and Guild members. For example, St. Paul is one of the most ethical cities in America today. Formerly these very conditions which I have described existed to such extent that it was stated, no strictly ethical dispenser could exist there. Our guild member in that city has been successful in obtaining the ethical coöperation of practically every eye-physician in the town. They recognize the advantages to themselves and their patients of the superior guild service. Absolutely no examining is done by our St. Paul member and no glasses, spherical or otherwise, are sold in that establishment without a prescription. This member today holds the vice-presidency of our organization.

I shall say to you further that for many months past not a single member has been admitted to the Guild who supplies glasses without a prescription from an eye-physician. This particular clause now means exactly what it says in its narrowest sense and no one, no matter who he is, from where he comes, or what the conditions may be in his locality, may become a Guild optician unless he can conform strictly to all of our requirements. Steps are now being taken so that even those 2 or 3 members for whom exceptions were made at the beginning will no longer sell any glasses without a prescription.

There is another criticism of the Guild which has been made, whether through misunderstanding or malicious intent does not matter. It has been reported by those who are not in sympathy with our principles and methods that the Guild was formed for the sole purpose of price fixing. I wish to state emphatically that this is not the case. Nothing could be further from the truth. Prices are never discussed at our meetings and while certain types of frame and mountings may be sold by various opticians throughout the country at approximately the same price, the selling price is based upon the wholesale cost, which is the same to optometrists, guild opticians and non-guild dispensers alike. A guild member can and does produce glasses just as cheaply, compatible with quality, as any non-guild optician. However, you must realize we have to deal with people of varied tastes in all stations of life. We carry the lowest priced and also the most expensive frames and mountings, but in a guild establishment the patient is assured of the highest quality procurable for the price. The poor patient can in most instances obtain lower priced glasses in a Guild shop than he can elsewhere. If he is too poor to pay anything, many times

they are presented to him and no charge whatever is made, either for service or material. Let me re-affirm there is no price fixing in the Guild.

In spite of the dissensions of which I have spoken, the Guild feels that a real stride forward has been made. We are having considerable success in educating the public to the need of the eye-physicians. We are giving better service in every way to his patients, and we are enforcing ethical practice. We are striving for better and more complete results all the time. All we ask in return is the coöperation of the eye-physician whom we are endeavoring to help by enlarging his practice and protecting against incompetent dispensing, and for whose patients we are trying to produce the best results.

THE MANAGEMENT OF CARCINOMA OF THE UTERINE CERVIX

J. Thompson Stevens, M.D.,
Montclair, N. J.

* (Read by invitation before the Galen Club, Rutherford, N. J., Nov. 1, 1928, and before The Staff of the Montclair Community Hospital, Dec. 10, 1928)

I wish to take this opportunity to express to you gentlemen my appreciation and thanks for having invited me to come here to discuss with you carcinomas of the uterine cervix and their management at The J. Thompson Stevens Clinic for Radiation Therapy and Electrothermic Surgery. In this presentation the plan of management, and a review of the technical problems encountered in carrying out the treatment of this disease with Roentgen rays, radium, and electrothermic surgery, will be given, together with a brief statement of results obtained.

So much has appeared during the past few years regarding the scientific application of radiations according to physical measurements, that perhaps a paper in which the clinical conditions encountered were equally stressed may not be out of order. Correct irradiation cannot, of course, be applied without making use of the investigations of the physicist; however, the clinician must determine the indications for treatment of the individual patient, and the results obtained by application of the treatments advised. With these thoughts in mind, this paper is presented with the hope that it will be of some help in keeping us ever mindful of the proper relationship or balance between the laboratory and clinical aspects of the subject.

Clinical Classification For Treatment By Examination

Preliminary examination to determine the extent of the new growth is carried out bimanually and, by the use of a speculum, by sight. From this examination, cases are classified according to the Schmitz grouping presented in 1920:

(1) The carcinoma is clearly localized within the cervix and there is absolutely no fixation of the genital organs.

(2) The carcinoma has extended so that the entire cervix is involved and the tissues about the cervix feel boggy.

(3) The carcinoma has extended to the extracervical tissues, one or both parametria being involved, or definite metastasis to the pelvic lymph nodes has taken place.

(4) The carcinoma has involved the pelvic tissues to such an extent that there is absolute fixation of the genital organs, the patient is said to have a "frozen pelvis", there is cachexia, etc.

(5) The carcinoma has recurred and is classified into either the first, second, third, or fourth group as above according to the extent of involvement present.

Clinically, carcinomas of the uterine cervix occur in 3 groups: (1) Those that spring from the vaginal surface of the cervix; (2) that begin in the cervical canal; (3) that involve both the vaginal surface and the canal when first seen. Carcinomas of the uterine cervix are also classified clinically as: Everting, i.e., those of the cauliflower, papillary, and proliferating types; and, inverting, those of the infiltrating, nodular, ulcerative and parenchymatous types.

A rectal digital examination is always made to determine the condition of the lymph nodes located at the bony pelvic girdle and the para-

metrium. Often it is advisable to examine the lower sigmoid and rectum with the endoscope in order to define the damage to these parts by extension of the disease. If there are any symptoms other than those of pressure from the urinary bladder, the organ must be explored by the cystoscope in addition to the routine urinalysis. In spite of the fact that a patient must be treated regardless of the condition of his other vital organs, it is always well to have the various functional tests made, together with blood chemistry examinations so that unexpected complications may not arise during the course of treatment; also they are a valuable aid from the prognostic standpoint.

The majority of cases treated have already had a biopsy. Those referred for diagnosis, and advice or treatment, as the case may be, have sections taken by surgical diathermy. Surgical diathermy is used for this because it is felt that it is a little safer. Some authorities, as you know, state that there is no danger in taking sections; others that mechanical metastasis may be produced by such diagnostic procedures. In any event the patient is certainly entitled to every measure with which she can be surrounded that will in any way increase her chances for ultimate recovery. Removing sections by surgical diathermy can be done with almost no trauma; the tumor does not have to be caught and held by some crushing instrument; the current seals the cut vessels, both blood and lymphatic, and for this reason there is no bleeding; therefore, by this method whatever possibility there may be of perhaps producing a fatal metastasis is reduced to a minimum.

Histopathology

Carcinomas springing from the vaginal surface of the cervix are the more frequent variety. They grow from the squamous epithelium covering the mucous membrane and are known as squamous cell carcinoma. Adenocarcinoma begins within the cervical canal from one of 2 sources: (a) from the cylindric epithelium covering the cervical canal, or (b) from the glands of the cervix. Histopathologic studies may also determine the degree of malignancy in the individual case. According to Broders, cases fall into one of 4 groups; group 1 being the least and group 4 the most malignant. This grouping is of great importance to the clinician in selection of cases for treatment.

Should the preliminary examination show that the new growth is associated with infection—and advanced cases are always infected—this must, of course be remedied before anything locally can be attempted with safety. Douching with saline or mild antiseptic solutions and the use of autogenous vaccines will eradicate all of the ordinary organisms including those of the staphylococcus and streptococcus varieties, except the Streptococcus hemolyticus; this most dangerous organism found associated with carcinoma of the cervix will, however, resist such treatment. Witherbee observed that hemolytic streptococci disappeared from irradiated tissues by the second week following treatment. His observation would appear to be a fact because the treatment about to be described always begins with Roentgen irradiation and to date there has appeared no severe infection or death due to the Streptococcus hemolyticus following localized procedures, in spite of the fact that the organism may have been present before preliminary irradiation.

Preliminary Roentgen Irradiation

Since it is almost a constant observation that patients do not die of malignancies until the disease has metastasized to vital organs, and since there is no treatment or agent that can compare with the efficiency of thorough, correctly applied Roentgen rays in the eradication of malignant disease involving tissues or organs about primary lesions, or in preventing such tissues and organs from invasion by malignant extensions, the treatment always begins with Roentgen irradiation. This would appear to be a wise plan for our first attempts to eradicate the disease. For instance, Wertheim during many of his radical hysterectomies, was surprised to find that of all cases which appeared to be very early 1/3 already had metastasis to the pelvic lymph nodes. Also, we have all seen such beautiful local radium results and the patient apparently not improving, and eventually death result-

ing from malignant extensions which could not be efficiently irradiated with radium alone by application within the cervical and uterine canal. Further, the laboratory observation of many that irradiated tissue either does not permit transplanted malignant cells to grow, or that they grow with difficulty, and that irradiated malignant cells either do not grow or grow with difficulty when transplanted, would appear to indicate that not only the tissue actually involved by the disease but all of the tissues and organs within reasonable limits ought to be thoroughly irradiated. It is an anatomic impossibility to reach all of the pelvic organs and tissues with radium rays in efficient quantities; therefore, during the past 8 years no case of carcinoma of the cervix has been treated with radium alone. The Roentgen treatments, for reasons already stated, are always given first and the results have improved in accordance with the improvements in the technic.

Technic of Roentgen Irradiation

The preliminary Roentgen treatments are planned so that they will be completed within 2 weeks time with not more than 8 to 10 days actually utilized in treatments. The number of ports of entry varies from 5 to 9 according to the size of the patient's pelvis. They are taken from the lower abdominal region, the sacrogluteal region, from the lateral aspects of the pelvis, and from the perineum. Generally, in this 2 weeks of preliminary Roentgen treatment, each port of entry is treated twice with rays generated at a voltage of 200,000, the focus skin distance being 50 cm., the filter 0.5 mm. of zinc plus 3 mm. of aluminum; 37% of such rays reaching a depth of 10 cm., and the time duration of each treatment varied directly as the size of the pelvis varies in individual patients so that 200 to 250 milliampere minutes is the applied dosage to each port of entry. The number of ports of entry taken together with the time duration of the treatment over each is so planned that not less than 170 units dosage will actually be applied to the cervix, uterus, and pelvic organs and tissues by the total irradiation from all ports.

Clinical Classification Following Preliminary Roentgen Irradiation

Often even in the most desperate cases there is marked change in the clinical condition of the patient. She is generally happier and has a more optimistic outlook, because usually the hemorrhages have disappeared, sometimes even there is no bloody streaking, discharge has decreased, and not infrequently all pain has disappeared. Conditions in general are almost always much improved and the patient comes up for local treatment not later than 1 week following the last day of the preliminary treatment. Examination often shows an improved local condition even at this early date; cases that have had the most evidence of infection associated with the malignancy, showing the most striking results. Not infrequently a new growth that appeared to involve the cervix with extension to other parts has receded so that only the cervix is actually involved. The apparent malignant extensions of the disease were not actually such but proved to be only the products of an extensive pelvic infection grafted onto the malignancy. The malignant tissue itself also shows the effect of the treatments in that it may not bleed so easily, the field can be kept comparatively free from blood and under such conditions more accurate, efficient local treatment can be carried out by the operator.

Electrothermic Surgery

At one sitting, with the patient under gas and oxygen anesthesia, the new growth as manifested by cauliflower-like findings, proliferations, infiltrations, nodulations and ulcerative conditions, is destroyed and removed by electrothermic coagulation. Care is taken to place a coagulated wall, if possible, well out in the healthy tissues surrounding the disease. Then the disease itself is destroyed and removed, the coagulation being continued until there is a coagulated base beyond what was the deeper extension of the disease; sometimes even the entire cervix is destroyed and removed by this method. Your essayist has described the exact technic of electrothermic surgery elsewhere, and since the advantages of this method of operating as compared with any and all of the older methods are so well

known to all cancer workers the discussion on this topic will end here because this paper is already too long.

Radium Therapy

Radium treatment is begun just as soon as the electrothermic operation is completed; in fact, it is done under the same anesthetic. Special applicators are made to fit the individual case and are placed within the cervical and uterine canal without dilatation, if possible. The capsules are placed in tandem so that the entire uterine canal from fundus to cervical stump is filled. Occasionally 1 capsule will accomplish the desired result, generally, however, 2 or 3 must be used, and sometimes even 4 capsules may be necessary. The amount of radium in each does not often exceed 15-20 mgm. This small amount of radium is generally used so that a prolonged treatment can be given safely. The advantage of using a comparatively small amount of radium for a long period of time, as compared with a large amount of radium for a shorter time, the same total dosage being applied in each instance, is a very important one. Malignant cells are easy to destroy when undergoing mitosis. All of these cells do not divide at the same time. Therefore, with the longer time duration of the radium treatment, the results will be best. The filter for the radium is 2 mm. of brass plus 1 mm. of aluminum. Lastly, the vagina must be ballooned with gauze.

It is intended to complete the radium treatment with 1 application. Less than 1% have had 2 exposures to radium. Radium used in such small quantities and distributed over such large areas it can safely be left in place from 3 to 5 days. In such treatments the dosage averages about 5 gram hours although 3 gram hours only may be indicated in some instances and in others as much as 7 gram hours have been given.

Post-Radium Roentgen Irradiation

In from 2 to 3 weeks following completion of the radium treatment just described, i.e., in 4 to 5 weeks following the last Roentgen treatment of the preliminary series of treatments, further Roentgen treatments are given in the manner already described under preliminary Roentgen irradiation. These are completed within 2 weeks, giving a total Roentgen irradiation over each port of entry of from 800-1000 milliampere minutes, or nearly 3 erythema doses have been applied to each port without at any single treatment ever approaching the erythema. The skin is, however, deeply tanned by such treatment.

With such a combination of Roentgen and radium treatments it is felt that the patient is kept well saturated with radiations for a period of about 12 weeks; in fact, the treatment given is probably as thorough as is applied anywhere by anyone. Carrying on further with the suggestions already made for radium treatment, all of the Roentgen treatments are given with a low milliamperage which, of course, makes this method of treatment a tedious one for all concerned. The average total machine treatment hours are 28 which approaches very closely the total number of treatment hours employed by Furst at the Gynecologic Institute of Zurich University, whose average is 40 hours.

Prognosis

No cure can, of course, be absolutely promised in the treatment of any malignant disease, no matter where it may be located. Carcinomas of the uterine cervix are very malignant and, before the days of Roentgen and radium therapy and electrothermic surgery, even with the Wertheim operation, if the patient didn't die of the operation she was almost sure to die eventually of the disease. However, in general, under the methods of treatment herein advised the older patients usually do better than the younger ones. Patients afflicted with carcinoma of the everting type generally get better results than those suffering with the inverting type. Carcinoma springing from the vaginal surface of the cervix, while somewhat more difficult to influence with radiations, once they are cleared up the result is more likely to be permanent. Carcinoma springing from the canal of the cervix metastasize easily and while they are more easily influenced by the radiations any results obtained are not nearly so likely to remain permanent. It is impossible to overestimate the value of the studies of Broders

and Schmitz regarding the prognostic importance of the histologic malignancy index. Cases of the first 2 groups, if not in an advanced condition when first seen by the physician, have very good chances to be arrested; those of the third group have a chance for recovery; while those of the fourth group are practically hopeless from the very beginning. However, from the standpoint of the clinician, the Schmitz plan for grouping cases is invaluable because the results of treatment are in direct proportion to the number treated and the stage of the disease found at the time active treatment is instituted.

Medical Ethics

THE SATISFYING REWARDS OF LIFE

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

"The right to live, the right to a full life, the right to sit in a library among the best books, the right to a well equipped mind, the right to a sensitive soul . . . these are the rights a wise democracy will cling to and guard as precious possessions."

James Ramsay Macdonald.

No man could have written the above words did he not himself possess a sensitive soul. We all know Ramsay Macdonald as the head of the Labor Party of England who became the Prime Minister of Great Britain. While we must disabuse our minds of the pronouncement that labor is a punishment and that it is a *curse* to be obliged to live by the sweat of the brow (Genesis 3:19), we believe that man should have other rights and other rewards than sweat. And these rewards he usually obtains, according to his intelligence, character, and his industry.

The satisfying rewards of life have been so well discussed by Dr. Wm. Allen Pusey in the February (1929) Bulletin of The American Medical Association, that those who have not read his remarkable paper will here pardon a few abstracts. The chief motive of these (quoting President C. W. Eliot) is the statement that the durable satisfactions of life are health, domestic happiness, economic independence, worldly success, and intellectual activity. This is so comprehensive that perhaps little more need be said. To quote Dr. Pusey: "I do not pretend to be able to solve the riddle of man's existence; why man was created; why we are here. That is bound up in the riddle of the universe. But this much I think is forced in on us by biologic knowledge: we are here first to be links in the chain of existence of our species, and second, like every other living organism on the earth, to do that part of the work of the economy of nature that has been assigned to our species in order that this universe of ours shall continue in its course to its destination, whatever that may be. * * * As Aristotle put it, 'The end of life is action'."

"But the usefulness of medicine is of that direct sort which makes its values obvious at the time of service, and in this quality of direct usefulness lies one of the solid satisfactions of medicine."

"I believe that the altruistic satisfaction in medicine is an incentive to its practice to a greater extent than we realize." (Italics mine.)

"One may be skeptical too, about much being gained by having money in large measure. * * * All one can do with an excess of income, unless he spends it wisely in enterprises of usefulness, is to indulge in excess of luxury and gratify vanity * * * too much seeking after comfort and luxury defeats itself."

"One or two things concerning economic independence I am certain: The first is that one of its greatest satisfactions is in earning it; the other is that the necessity of earning it is one of the greatest spurs to usefulness."

"When I speak of intellectual activity as one of the substantial satisfactions in life, I am using the term in the wider sense than perhaps it usually comprehends, for I have in mind not simply the serious operations of the mind but also the lighter activities; its interest in the arts and humanities."

The lesson, after all, is that we should not be afraid of work, that we should not regard it as a curse on mankind but rather a blessing of the very first order. One often thinks longingly of the arrival of the day of large independence, when we can quit our job and retire to enjoy those many satisfactions a busy, hard-working man naturally looks forward to as the crowning achievement of his labors. Too often we find that this is a delusion, and that our happiest days were those spent in the *quest* and not in viewing the *quarry*.

Read again C. W. Eliot's statement of the elements of the durable satisfactions in life—health, domestic happiness, usefulness, economic independence, worldly success, and *intellectual activity*. Ask the man who owns them if he is not a happy man, even if Thos. A. Edison does tell us "there ain't no such animal"!

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE:

CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Apartment 22 Grammercy Court, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

APPROACHING ANNUAL MEETING

The April Journal contains the proposed revision of Constitution and By-Laws that is to be acted upon by the House of Delegates June 12. If you have not yet read and studied the committee's report and considered the changes recommended, it is advisable to do so at once; for now is the time to speak if you are not satisfied with what is offered.

In this issue of the Journal you will find the complete program for the convention; including an outline of work for the business session of the Delegates; the general scientific sessions; section on pediatrics; section on ophthalmology and otorhinolaryngology; the woman's auxiliary; and, the evening entertainments. Something of interest for every physician and for every member of his family. The business to be transacted is of the utmost importance as related to the future welfare of our organization. Rarely, if ever, have we had promise of so rich a scientific program; more than 40 carefully selected papers by our own members; 4 symposiums headed up by distinguished guests; 4 additional guests to speak upon subjects concerning which they voice leadership. Walter E. Dandy, of Johns Hopkins, opens the traumatic surgery symposium with a paper on "Injuries to the Head"; H. R. M. Landis, of Philadelphia, starts the discussion of "Pulmonary Diseases"; Jay F. Schamberg, of Philadelphia, leads the urologic symposium with "Newer Methods of Treatment of Syphilis"; any one of these speakers is alone worth all the trouble and expense involved in attending the convention. You are bound to profit from participation in these meetings; you owe it to our guests, to your associates who have prepared papers, and to the program committee to show appreciation of their labors in your behalf.

Finally, you owe it to yourself and your family that this week in June shall be made a professional holiday; wife, mother or sister will want to take part in the woman's auxiliary, and the children will find abundant entertainment on the beach.

STATE LEGISLATURE ADJOURNS

For 3 months a large portion of our time and attention has been perforce concentrated on the General Assembly in session at Trenton. More than the usual number of "cult bills" were introduced and the character of some of those presented was decidedly worse than heretofore. The osteopaths, with more boldness than judgment, demanded the legal right to use the title "Doctor" and its characteristic abbreviation; at the same time demanding all the legal rights and privileges pertaining to the practice of medicine in its fullest sense—including practice of obstetrics and of surgery, and recognition by health boards, business groups and courts, of their certificates in relation to births, deaths, and infectious diseases. Nor were the chiropractors

governed by any great amount of modesty; A. 380, providing authority to do anything except prescribe drugs; in A. 292, demanding a separate board of examiners, and so wording the proposed law that their board would have been able to issue licenses without exacting anything worthy the name of an examination. The naturopathic bill, A. 145, and the tripartite bill, A. 25, representing a combination of one faction of chiropractors with naturopaths and osteopaths, likewise called for a separate examining board and special privileges.

Public hearings were held for argument upon S. 44 (the osteopathic bill), and A. 292 (one of the chiropractic bills), and we were pleased to note that both committees were keenly interested in the essential point that all would-be healers should be required to show possession of adequate preliminary education and training. All but one of these bills died in committee, and that one got no further than the second reading file; its advance that far having been the result of a misunderstanding. So, another year ends in frustration of plans of those who persistently attempt to break down the existing standards for medical practice licensure.

NEWSPAPERS AND PROPRIETARY MEDICINES

Is there any reasonable hope of influencing newspapers toward refusal of advertising matter that is demonstrably fraudulent in character? Every physician must have been impressed by the advertising campaign conducted by nostrum manufacturers during the past winter months when a nationwide epidemic of influenza was threatened. While our public health departments were warning against undue exposure to infection and the papers were printing these warnings together with advice as to preventive measures, the same daily papers were carrying in their advertising columns most ridiculous claims as to the potency of substances never before recommended for prevention or treatment of that disease. One well known tablet, commonly used by the laity for aches and pains of any sort, suddenly blossomed out with the claim that if dissolved and employed as a gargle it would prevent this infection. A much advertised mouth wash had seemingly developed marvelous antiseptic properties; claiming, even in very weak solutions, to destroy by the million any kind of microorganisms anywhere. More protective still, one preparation was alleged to be so powerful, and so selective in its action, that one drop on the pocket handkerchief in the morning would continue all day to give off fumes capable, if inhaled at intervals, of maintaining the respiratory passages in state of health.

What can we do about it? In an article read before the Tristate Medical Conference (April Journal, page 348), we have suggested that some good may be accomplished by having the county societies deal directly with the papers in their respective territories. As a general proposition, newspaper owners and managers are "out to make money" and seem to care little about the honesty of their advertisers. Nevertheless, they all are to some degree susceptible to public opinion and, particularly in the smaller cities and towns, public opinion can be brought to bear upon those responsible for a paper's management. Publications of national import are not easily affected; the management cares little about the opinion of one or a dozen subscribers. County papers must care a great deal more about the opinions of individual subscribers, and especially about the support of groups of citizens influential in the radius of their circulation. The members of a county medical society can do much in the way of influencing public opinion; can possibly do something in the line of influencing editors and advertising managers of local papers without even the threat of public action. We would like to see the experiment tried.

IN UNION THERE IS STRENGTH

In the years 1927 and 1928 no occasion arose for massing our forces at Trenton; there were no public hearings on medical bills. This year, when it became necessary to call upon Welfare Committee members and presi-

dents and secretaries of county societies to attend the hearing on S. 44, we were gratified by the response; an exceptionally large percentage of such officers having put in an appearance, and many of them being prepared to speak if necessary. The Senate Committee was patently impressed. In striking contrast was the fact that the hearing on A. 292 disclosed the chiropractors at war among themselves; their own speakers referring to "chiropractors and so-called chiropractors", and several of them debating at cross purposes. If there is any one thing relating to organization work that is clearly proved it is that our advances and victories are won by unified effort, and our losses or delayed progress result from failure to pull together at critical moments. When we set ourselves a given task, we should work as a unit for its accomplishment.

GROWTH OF THE JOURNAL

We sometimes wonder if members are taking note—and especially whether they approve—of the steady increase in the size of the Journal. From a standard average of 32 pages of reading matter only 5 years ago we have climbed to a monthly average, since last October, of 96 pages. Whereas 4 original articles per month once measured our allotment, we are now compelled to publish 10 each month to keep pace with incoming material. A marked increase has taken place also in the scientific reports coming from county societies and from some of the important hospital staff associations; practically all of the latter constituting good, postgraduate, educational reading.

It is also noteworthy that a wealth of material has been found available for our special departments, particularly Economics, Observations from the Lighthouse, and Collateral Reading; indeed, our problem is not so much what to publish, in the limited space at command, as what we can afford not to publish. Then, our Current Events, embracing at times complete, stenographic reports of discussions of some of the more important medicosocial problems of the day, seem to us to be of exceptional value.

This month, for economy's sake, and to meet an exhausted budget, we have had to reduce reading matter to 54 pages, but we hope to resume the larger size of Journal in June.

Communications will be welcomed from members having suggestions to offer for further improvement of the Journal; and, we will try to bear up under any criticisms that you wish to present.

Esthetics

LITERARY REBELLION

By Grover C. Orth

For years I doggedly wended my way,
  Though weary of brain and of eye,
Through tomes which were classic, uplifting and deep,
  But, oh, so damnably dry!
Until in despair I would throw the books down,
  And sleepily hie me to bed;
For those were the day I was eager to read
  The books that I ought to have read.

In fancy I see myself hast'ning along—
  My unabashed aim to get through
With the books that were maudlin or "clever" or "smart",
  Although quite unmistakably new!
And so until late I would drive at the task,
  But there were always others "just out"—
For those were the days when I tried to keep up
  With the books they are talking about.

And now I have done with the "old" or the "new",
  With the stupid or modishly "smart";
My books I shall choose as I chose me a wife—
  By the lovers' old law of the heart;
So I'll browse o'er a page, if I feel so inclined,
  Or will linger and take me mine ease;
And I solemnly swear that from now on I'll read
  Just only such books as I please!

"OFFICIAL LIST" CORRECTIONS

Through a typographical error an asterisk appeared before the name of Dr. E. C. Chew, of Atlantic City, in the list of Permanent Delegates, and before the names of Drs. Imre Kemeney, of Carteret, and Charles T. Steffens, of Dunellen. These men are very much alive and in active practice. The humble apologies of the Secretary are herewith submitted.

J. B. Morrison, Recording Secretary

In Memoriam

WEEKS, Dr. David F.

It is with sincere regret that we record the death of Dr. David Fairchild Weeks, late Superintendent of the N. J. State Village for Epileptics, Past-President and Permanent Delegate of the Somerset County Medical Society. He was stricken at his desk at 11 a. m., on the morning of March 15. After intense suffering for 2 hours and 45 minutes, he died of "Angina Pectoris".

Dr. Weeks was born in Newark, N. J., July 31, 1874. He was educated in the public schools of Trenton, graduating from Trenton High School in 1892, from the State Schools in 1893, and then began his medical career by studying for 2 years in the office of his father. In 1894 he entered the Medical Department of the University of Pennsylvania, graduating in June, 1898; during which time he was quarterback of football teams of '96 and '97. He was successively Resident Physician at the McKeesport Hospital at McKeesport, Pa.; Cooper Hospital, Camden; Orthopedic Hospital and Infirmary for Nervous Diseases at Philadelphia. He had specialized in nervous and mental diseases, and was in private practice in Trenton from October 1, 1900, to November 30, 1907. He was formerly associated with the St. Francis Hospital, at Trenton, in the Medical Dispensary, and with the Mercer Hospital, Trenton, as Assistant Surgeon. He was also Examining Physician for the Penn Mutual, Prudential and other Insurance Companies until appointed Superintendent of the New Jersey State Village for Epileptics, at Skillman.

He was married to Maude Adele Clampitt, at Oak Lane, Pennsylvania, March 12, 1902.

He was appointed to the Superintendency of the New Jersey State Village for Epileptics on December 1, 1907. This institution was his life's work. He developed it from infancy into one recognized among the most efficient in the care and training of epileptics. His executive ability was recognized, not only by his associates in the state, but his advice was frequently sought by national and international organizations interested in this work.

During his original research he visited every epileptic institution in the world and contributed many articles on epilepsy, among the most important being the work on "Heredity in Epilepsy" and "Effect of Diets on Epilepsy". While his interest was primarily with the epileptic, he was active in all movements for the benefit of humanity.

During the World War he was anxious to volunteer for military service but was persuaded by friends who knew his worth to the state, that he could better serve his nation by remaining at his post. He took an active interest, giving freely of his time, energy and money in all relief movements.

He was a member of the following organizations, and in each one took an active part: Ashlar Lodge, No. 76, Free and Accepted Masons; Gebal Council, Three Times Three Chapter, R. A. M.; Palestine Commandery No. 4; N. J. Society, Sons of American Revolution; Tall Cedars of Lebanon; Crescent Temple A. A. O. N. M. S.; Trenton Lodge No. 105, Benevolent and Protective Order of Elks; Founders and Patriots; Colonial Wars; Kappa Sigma Fraternity; and Trenton Kiwanis Club. He was a member of the following medical societies: Mercer County Component Medical Society, Medical Club of Philadelphia, Somerset County Component Medical Society, National Association for the Study of Epilepsy, International Liga Contra l'Epilepsie, New Jersey State Medical Society, American Medical Association, National Association for the Study of Epilepsy, American Association for the Study of Feeble Minded, Fellow Ameri-

DAVID F. WEEKS

can Psychiatric Association, Association for the Study of Internal Secretions, American Association for the Advancement of Science, American Genetic Association, Maryland Psychiatric Society and Eugenics Research Association.

In his death not only our society, but the state and nation have suffered an irreparable loss.

HANN, Peter S., one of Dover's oldest practicing physicians in point of service, died suddenly Thursday evening, March 21, in his West Blackwell Street home after a week's illness of grippe. He had apparently almost recovered from the illness and was preparing to dress when he was seized with a heart attack. Several physicians were summoned, but their efforts were unavailing.

Dr. Hann was born October 13, 1857, on Schooley Mountain, his ancestors having been among the earliest settlers of that section. He was the son of Henry Hann and Anne Schuyler. Following graduation from the New York Homeopathic Medical College in 1881, Dr. Hann started a practice in Boonton, but later transferred his office to Long Valley. Thirty-five years ago he came to Dover and established an office in a residence the site of which is now occupied by the Palmer Building at Blackwell and Essex Streets.

Later he purchased the property at 48 West Blackwell Street, where he erected a home. Dr. Hann was a member of the Morris County Medical Society, and held the position of medical examiner for the school boards of Rockaway and Randolph Townships. Besides his wife he is survived by a son, Dr. Harry H. Hann, local dentist, and two grandsons.

KELLY, Thomas J., of 69 Roseville Avenue, Newark, died of cardiorenal-vascular disease on April 24, 1929, at the age of 45 years.

Dr. Kelly was formerly Assistant Surgeon on the visiting staff of City Hospital and, more recently, a city district physician. In his city work he was assigned to the Vailsburgh section. He leaves a wife, Mrs. Mary E. Kelly, and two daughters, the Misses Mary and Jean Kelly. Dr. Kelly is survived also by his father, Edward Kelly, and three sisters, all of Fairfield, Conn., his birthplace.

The doctor was a member of the Essex County Medical Society, the New Jersey Medical Society, the American Medical Association, the Elks and the Veterans of Foreign Wars.

VAN GAASBEEK, Harvey D., of Sussex, New Jersey, died at his residence Saturday, April 20, 1929. The end came suddenly although he had been a sufferer from myocarditis for the past 12 years. He was the son of DeWitt Clinton VanGaasbeek and was born at Highland, N. Y., December 14, 1856. He was graduated in Medicine from New York University in June, 1878, and began the practice of Medicine in Sussex, N. J., in July, 1881. He was married to May Cox on May 23, 1883. He had been the reporter for Sussex County Medical Society since 1910, and was the President of the Alexander Hospital Association from 1919.

Preliminary Program

MEDICAL SOCIETY OF NEW JERSEY

The 163rd Annual Meeting, Haddon Hall, Atlantic City, June 12, 13, 14 and 15, 1929

ANNOUNCEMENTS

Credentials and Certificates

The Committee on Credentials will meet at Haddon Hall on Tuesday afternoon, June 11, and on Wednesday morning, June 12. Its office will be open constantly during the meeting.

The Constitution requires that all Fellows, Officers, Annual and Permanent Delegates, and Reporters shall register with this committee.

Permanent Delegates failing to register will be marked as absent by the Recording Secretary. Annual Delegates must present to this committee a certificate of election signed by the President and Secretary of their component societies. Without such certificate they cannot sit as members of the House of Delegates.

Every Permanent Delegate must present a certificate bearing the seal of the Society and signed by the Recording Secretary, and without such certificate he cannot register nor vote in the House of Delegates. Nominees for Permanent Delegates cannot register as Permanent Delegates until after their election by the State Society, when they will receive certificates from the Secretary so that they can obtain their appropriate badges.

Certificates of nominees for Permanent Delegates must follow the special form given in the Constitution on page 12. They should be sent to the Recording Secretary at least one week before the meeting, so that the names may be presented to the Society for election.

Each member of the Nominating Committee should present his certificate to the Recording Secretary before the opening of the afternoon session so that the names of the Nominating Committee may be announced as indicated on the program. The Nominating Committee will meet on Thursday, June 13, at 5:30 p. m., in the committee room.

Papers and Reports

All papers read before the Society or appearing by title on the program, whether read or not, thereby become the property of the Society. The author of each paper is required to give the Recording Secretary a legible copy of the same **before** reading. The expense of alterations in a paper after it is in type, and the cost of illustrations, is borne by the author. All manuscripts should be typewritten, double spaced, and on one side of the paper only.

Excepting orations, addresses of special guests, and the address of the President, the time to be occupied in the actual reading of a paper is **limited absolutely to 20 minutes.** Those opening the discussion are allowed 10 minutes each, others 5 minutes each.

Members desiring to present voluntary papers or reports of cases should first have their papers accepted by the Committee on Scientific Work and then apply to the Committee on Program for a position.

Papers and reports not presented when called for by the President cannot be presented at a later time unless the regular order of business is completed.

All members of component societies who are in good standing are entitled to sit as associate members and have the privilege of discussing papers in the general session, but have no vote nor the right to take part in the discussions of the House of Delegates.

On arising to discuss a paper, the speaker will please walk forward to platform and announce his name and address clearly for the benefit of the society. No member may speak a second time in any discussion.

All sessions will be opened promptly at the hour set, in order that the program may be carried out as planned.

The Board of Trustees will meet at Haddon Hall, Tuesday, June 11, at 8 p. m.

Committees or Boards desiring meeting rooms will please notify the Committee on Arrangements, M. W. Reddan, Chairman, or W. D. Olmstead, Secretary.

The rates at Haddon Hall, on the American plan, are:

Rooms with running water—
1 person, $6 to $8 per day
2 persons, $12 to $14 per day
Rooms with bath—
1 person, $10 per day
2 persons, 14 to $20 per day

Exhibits

Exhibits of instruments, books, pharmaceutical preparations, x-ray apparatus, etc., will be shown in "Rutland" room of the hotel and members are urged to avail themselves of this opportunity to examine the very latest improvements in these various departments.

The degree of interest shown by the visitors in these exhibits mathematically increases or decreases the revenue to the society. It's up to you to help.

DAILY PROGRAM

Wednesday, June 12, 1929, 9.30 A. M.

Meeting of House of Delegates

Call to Order.
Report of Committee on Credentials, William J. Carrington, Chairman.
Reading of Minutes of 1928 Meeting.
Report on Permanent Delegates.
Nominees for Permanent Delegates.
Report of Committee on Arrangements and Program, M. W. Reddan, Chairman.
Report of Committee on Scientific Work, W. E. Darnall, Chairman.
Report of Committee on Publication, Charles D. Bennett, Chairman.
Report of Corresponding Secretary.
Report of Recording Secretary.
Report of Executive Secretary.
Report of Field Secretary.
Report of the Board of Trustees.
Report of Welfare Committee.
Report of Judicial Council.
Report of Committee on Finance and Budget.
Report of Committee on Honorary Membership.
Report of the Treasurer.
Report of Board of Medical Examiners.
Report of Committee on Public Hygiene and Sanitation.
Report of Committee on Standardization of Hospitals.
Report of Committee on Indemnity Insurance.

Report of Committee on Group Health and Accident Insurance.
Report of Delegates to the American Medical Association and to State Societies.
Report of Special Committee on Constitution and By-Laws, Frederick J. Quigley, Chairman.

SCIENTIFIC PROGRAM

Symposium on Pulmonary Diseases

Thursday, June 13, 1929, 9 A. M.

(1) Modern Treatment of Tuberculosis with Special Reference to Rest
H. R. M. Landis, Philadelphia
(2) Subsequent History of 10,000 Cases of Tuberculosis
S. B. English, Glen Gardner
(3) Tuberculosis in Infancy and Childhood
B. S. Pollak, Secaucus
(4) Relapses in Tuberculosis
Martin W. Collier, Lakeland
(5)
Henry M. Lloyd, New York

Discussion.—To be opened by A. E. Jaffin.

Symposium on Traumatic Surgery

Thursday, June 13, 1929, 2 P. M.

(1) Injuries to the Head
Walter E. Dandy, Baltimore
(2) Femur Fractures from Standpoint of General Practitioner
Elmer P. Weigel, Plainfield
(3) Injuries to the Back
Carl R. Keppler, Newark
(4) Abdominal Mysteries
David B. Allman, Atlantic City
(5) Traumatic Inguinal Hernia
F. W. Shafer, Camden

Discussion.—To be opened by J. Wesley Barrett, Camden.

Symposium on Urology

Friday, June 14, 1929, 9 A. M.

(1) Newer Methods of Treatment in the Attack on Syphilis
Jay F. Schamberg, Philadelphia
(2) Benign Enlargement of the Prostate Gland
C. H. DeT. Shivers, Atlantic City
(3) Injuries to the Kidneys; After-Effects
Stanley R. Woodruff, Jersey City
(4) Tumors of the Testicle; Report of Case
D. F. Bentley, Camden
(5) Urologic Symptoms; Their Significance
Robert L. McKiernan, Newark

Discussion.—George Sommer, Trenton and A. H. Lippincott, Camden.

Friday, June 14, 1929, 12 Noon

Presidential Address
Ephraim R. Mulford, Burlington

Report of Nominating Committee and Election of Officers

(No Other Business)

Friday, June 14, 1929, 2 P. M.

(1) A County Medical Society Program for Medical Publicity
Spencer T. Snedecor, West Englewood
(2) Some of the Atypical Pneumonias
Clarence L. Andrews, Atlantic City
(3) Influenza; Some New Clinical Observations
D. Ward Scanlan, Atlantic City
(4) Gonorrheal Septicemia
S. E. Kramer, Perth Amboy
(5) Louis Faugeres Bishop, New York

SCIENTIFIC PROGRAM

Section on Ophthalmology, Otology and Rhinolaryngology

Chairman: Linn Emerson, Orange

Thursday, June 13, 1929, 9.30 A. M.

(1) Relative Importance of the Fitting of Glasses in Ophthalmic Practice
Sidney E. Pendexter, East Orange
(2) Importance of Cycloplegia in the Fitting of Glasses
Leighton F. Appleman, Philadelphia
(3) Fitting of Glasses from the Optician's Standpoint
Mr. J. C. Reiss, President,
Guild of Prescription Opticians of America,
Newark

Thursday, June 13, 1929, 2 P. M.

(1) Phacoërisis
Isaac Hartshorne, New York City
(2) Simple Extraction
Elias J. Marsh, Paterson
(3) Combined Extraction
Lee W. Hughes, Newark
(4) Preliminary Iridectomy
Charles H. Schlichter, Elizabeth

Friday, June 14, 1929, 9.30 A. M.

(1) Prevention and Treatment of Acute Suppurative Otitis Media
Henry B. Orton, Newark
(2) Prevention and Treatment of Chronic Suppurative Otitis Media
Earl LeRoy Wood, Newark
(3) Prevention and Treatment of So-Called Chronic Catarrhal Otitis Media
Henry C. Barkhorn, Newark

Friday, June 14, 1929, 2 P. M.

(1) Suggestions for an Improved Technic of Submucous Resection of the Septum
Charles S. McGivern, Atlantic City
(2) Discussion of the Various Methods of Tonsillectomy
Charles F. Adams, Trenton

SCIENTIFIC PROGRAM

Section on Pediatrics

Chairman: E. G. Hummel, Camden

Thursday, June 13, 1929, 9.30 A. M.

(1) Ideals and Standards in Children's Hospital Practice
Elmer Chase Jackson, East Orange
(2) Value of Some Common Laboratory Procedures in Diseases of Infants and Children
Royce Paddock, Newark

Discussion to be opened by Vincent Del Duca, Camden.

(3) The Place of a Mental Hygiene Clinic for Children in the Community
James S. Plant, Newark
Discussion to be opened by Guy Payne, Overbrook, Pa.

(4) Hereditary Syphilis in Children
Julius Heilbrunn, Jersey City

Thursday, June 13, 1929, 2 P. M.

(1) Pneumococcus Peritonitis in Nephrosis
Walter B. Stewart, Atlantic City
Discussion to be opened by F. C. Johnson, New Brunswick.

(2) The Production of Sensitivity to Horse Serum by Diphtheria Toxin-Antitoxin
John McK. Mitchell, Philadelphia
Discussion to be opened by Fred W. Lathrop, Plainfield.

(3) Meningococcus Meningitis, with a Survey of 50 Cases from the Records of the Babies' Hospital, New York City
Victor DuBusc, Elizabeth

(4) Acute Purulent Mastoiditis at 8 Weeks of Age
Harry B. Silver, Newark

Friday, June 14, 1929, 9.30 A. M.

(1) Chorea: Etiology and Treatment
E. L. Minard, East Orange

(2) Celiac Disease and Its Treatment
Kenneth Blanchard, East Orange
Discussion to be opened by E. G. Wherry, Newark.

(3) Buttermilk in Infant Feeding
S. A. Levinsohn, Paterson

(4) The Oxygen Tent in Pneumonia
Chester Brown, Arlington

Friday, June 14, 1929, 2 P. M.

(1) End-Results of Stabilizing Operations on the Feet in Infantile Paralysis
B. F. Buzby, Camden
Discussion to be opened by Rutherford L. John, Philadelphia.

(2) Routine Use of Vitamine "B" a Factor in Infant Feeding
Roger H. Dennett, New York
Discussion to be opened by Joseph H. Marcus, Atlantic City.

(3) Use of Adult Whole Blood in the Prophylaxis of Measles
Fred W. Lathrop, Plainfield
Discussion to be opened by Frank C. Johnson, New Brunswick.

(4) The Thymus Gland
Elmer G. Wherry, Newark

The following clinics have been arranged to be held at the Atlantic City Hospital during the Convention of the New Jersey Medical Society, June 12, 13, 14, 15, 1929:

Wednesday, June 12

9-11	Gynecologic Operations	Walt P. Conaway
11- 1	General Surgery	Theodore Senseman
11- 1	Medical Clinics	Samuel Salasin

Thursday, June 13

9-11	Gynecologic Operations	Wm. Edgar Darnall
11- 1	General Surgery	David B. Allman
11- 1	Medical Clinics	D. W. Scanlan
11- 1	Pediatric Clinics	J. H. Marcus

Friday, June 14

9-11	Gynecologic Operations	Wm. J. Carrington
11- 1	General Surgery	H. I. Silvers
11- 1	Medical Clinics	Samuel Salasin
11- 1	Pediatric Clinics	Walter B. Stewart
11	X-ray Clinic	Wm. C. Westcott and Charles B. Kaign

Saturday, June 15

9-11	Gynecologic Operations	Wm. Edgar Darnall
11- 1	General Surgery	Thos. D. Taggart
11- 1	Medical Clinics	Samuel Barbash

PROGRAM WOMAN'S AUXILIARY

Thursday, June 13, 1929, at 10 A. M.

Business Meeting of Delegates in Music Room, Hotel Chalfonte

(1) Call to order by President, Mrs. George L. Orton
(2) Reading of Minutes of last meeting
(3) Appointment of Nominating Committee
(4) Reports of Officers and Committees
(5) Address by President of State Medical Society, Dr. Ephraim R. Mulford
(6) Address by Secretary State Medical Society, Dr. J. Bennett Morrison
(7) New and Unfinished Business

Thursday, June 13, 1929, 9 P. M.

Social Gathering in Vernon Room, Haddon Hall (see program of general entertainment)

Friday, June 14, 1929, 10 A. M.

Meeting of Delegates in Music Room, Hotel Chalfonte

(1) Report of Nominating Committee
(2) Election of Officers
(3) Address by the Editor of N. J. Medical Society Journal, Dr. Henry O. Reik
(4) Unfinished Business
(5) Installation of New Officers

Friday, June 14, 1929, 2.30 P. M.
In Music Room, Hotel Chalfonte

A bridge party arranged for all ladies attending the convention, and managed by the Entertainment Committee of the Woman's Auxiliary to the Atlantic County Medical Society, assisted by the Entertainment Committee of the State Society Auxiliary.

Friday, June 14, 1929, at 9 P. M.

Dancing and Cards (see Entertainment Program) in Vernon Room, Haddon Hall

---

PROGRAM OF GENERAL ENTERTAINMENT
Thursday, June 13, 1929, 9 P. M.
Vernon Room, Haddon Hall

This evening's entertainment, under the auspices of the Woman's Auxiliary to the Medical Society of New Jersey, is a volunteer musical program by members of physicians' families and is tendered to all members of the medical society and of the auxiliary, and their guests. The hostesses will be: Mrs. Ephraim R. Mulford, Burlington; Mrs. George L. Orton, Rahway; Mrs. A. Haines Lippincott, Camden; Mrs. William Freile, Jersey City; Mrs. D. Leo Haggerty, Trenton; Miss Samuel Salasin, Atlantic City.

Those who will participate in the musicale are: Mrs. Louis J. Kauffman, Millville; Miss Barbash and Miss Poland, Atlantic City; Mrs. John H. O'Neill, Jersey City; Mrs. Samuel Barbash, Atlantic City; with Mrs. A. H. Lippincott presiding.

Friday, June 14, 1929, 9 P. M.
Vernon Room, Haddon Hall
Dancing and Cards

Dance music will be rendered by the "Vernon Room Serenaders", a 7-piece orchestra of exceptional merit.

For those who do not dance provision will be made for playing cards in the rooms adjoining the ball-room.

It is understood that Thursday and Friday evening entertainments are for all members of the state society and the auxiliary, and their guests.

Coupon books will be issued to the ladies as heretofore, entitling them to rolling-chair rides.

The Committee on Program and Arrangements will be pleased to arrange for sailing parties, sightseeing trips and golf privileges at nearby country clubs for persons desiring such diversions; see Dr. W. D. Olmstead at Registration Desk.

Presessional Reports

At a meeting of the House of Delegates, June 11, 1927, the following resolution was adopted: "That the report of the Board of Trustees and the reports of committees which are to be acted on in the sessions of the House of Delegates, be printed in The Journal a month before the meeting in order that the delegates may be acquainted with the business that is to come before them."

In compliance therewith, the Editor requested the officers and chairmen of standing committees to submit their reports before April 20, for publication in the May Journal. The following reports include all received up to April 28.

Presessional Report of Welfare Committee

In absence of the Chairman, Dr. Andrew F. McBride, who is on a Mediterranean Cruise, the Secretary tenders the following report:

The organization meeting was held at Trenton, Sunday, October 15, with only 2 absentees. Dr. McBride was reëlected Chairman. The Executive Secretary reported on the status of the society's work between June and October, and outlined plans for the winter.

Upon the initiative of Dr. Londrigan, it was decided to seek enactment of a law providing that hospital and professional service charges should become a lien against damages awarded in emergency accident cases. Arrangements were made to have such a bill sponsored by the Hospital Association of New Jersey.

The Committee on Expert Testimony, having conferred with the State Bar Association representatives, tendered a bill for submission to the General Assembly, and reported that the Bar Association had agreed to sponsor its introduction.

Inasmuch as the Executive Secretary had been relieved of responsibility for supervision over legislation, and of all duties in connection with legislation, save such as are covered by correspondence and by The Journal, it became necessary to provide for some observation of events at Trenton. A resolution was adopted that the Mercer County members of the Welfare Committee, in conference with Chairman McBride, should name some one from the local society membership to serve as observer, and if necessary that some one outside be employed to assist in such work. As a result of this, Dr. D. Leo Haggerty has served very efficiently as an observer, and Mrs. Frances C. Wilkinson, an aide in the office of the Board of Medical Examiners, was engaged to keep close touch with passing events and to notify Drs. Haggerty or Reik of any unfavorable trends. The plan worked out very satisfactorily. (Details will be given in the Executive's Secretary's report.)

A special committee appointed to draft a new birth registration form to cover requirements of the Rehabilitation Commission, reported that the present law is unsatisfactory and should be amended; and submitted the amending paragraph desired.

A special committee was appointed to consider the necessity for new legislation governing the performance of autopsies in hospitals upon the bodies of persons brought to such institutions after street accidents. Consideration was given to the matter but a bill could not be gotten ready for the current General Assembly.

The Executive Secretary has endeavored to keep informed regarding legislative affairs and has promptly filed with each member of Senate and House written arguments against medical measures of an adverse character. Public hearings were given on 2 bills—S. 44 and A. 292—one of which was very well attended by members of the Welfare Committee and presidents and secretaries of the county societies, and the other fairly well by members of the committee; the county officers having not been called out on the last occasion.

While neither the expert testimony nor the hospital lien bill received the consideration due such important measures, we can report, on the other hand, that none of the bills we opposed came anywhere near to passage.

Respectfully submitted,

HENRY O. REIK, M.D.,
Secretary.

Presessional Report of Publication Committee
Dr. Charles D. Bennett, Chairman

Report, June 1, 1928 to April 1, 1929. (10 Months)

RECEIPTS

Balance on hand May 31, 1928	$ 588.71	
Advertising	11,148.29	
Subscriptions (extra)	31.50	
Sale of Journal (extra copies)	27.44	
Bills Receivable	390.96	
Cash on hand April 1, 1929	1,060.58	
Total		$13,247.48

EXPENDITURES

Commissions paid (Co-operative)	$ 570.10	
Discounts paid	171.73	
Chairman's Salary	416.66	
Chairman's Expenses	119.00	
Printing and mailing of Journal O.K.'d	9,741.40	
Reprints O.K.'d	167.00	
Index	124.00	
Total		$11,309.89

Committee on Health, Accident and Automobile Insurance

Preliminary Report for 1928-29

HEALTH AND ACCIDENT

Number of members insured by the Health and Accident Policy 345
Number of members having claims paid... 54

These claims were for amounts of from $25 to $775. Total, $8123.

AUTOMOBILE

Number of policies in force..... 84
Number of claims paid..... 25

These claims were for fire, theft, liability, property damage and collision, and varied from $7.60 to $1225. Total, $4046.60.

First dividends returnable to automobile policy holders (for liability and property damage) were payable December 31, and for the months of December, January, February and March have amounted to $333.81.

Respectfully submitted,
Frank W. Pinneo, Chairman.
J. Finley Bell,
Austin H. Coleman,
James S. Green,
Ralph K. Hollinshed,
Fred J. Quigley,
Clarence W. Way,
Ephraim R. Mulford, President.
J. Bennett Morrison, Rec. Sec'y
Elias J. Marsh, Treasurer.
Committee.

Presessional Report of Editor & Executive Secretary

To the House of Delegates,
Medical Society of New Jersey.
Gentlemen:

Close of another fiscal year for the society requires presentation of a report of our labors during the passing 12 months, and as this happens to be the fifth annual report we have submitted, it affords a good opportunity to review the progressive development of this office over a five-year period. As a matter of fact, we have been actively at work only 4½ years but as the work for the summer months is well advanced and our own fiscal year ends at the close of September, we may well summarize events on the five-year basis.

(1) The Journal. In last year's report, attention was directed to the steady growth of the Journal, in point of size, and to efforts made toward increasing its value to all members. Figures to be presented this time are even more striking in character, because we are accustomed to estimating progress upon a decimal system and the five-year period referred to is available for contrasting the new with the old.

A bound volume of the Journal for the year 1924 contained 406 pages of reading matter; the volume for 1928 contained 854 pages; the volume for 1929 will probably pass beyond the mark of 1000 pages. Here we have a definite increase of 250% but, as an allowance should be made for the change in size of the printed page effected 2 years ago, we estimate that the current volume will be almost exactly 3 times the content size of the volume issued 5 years ago. To have trebled in size in the course of 5 years is no mean accomplishment. Measured by other means than that of page numbering, we arrive at the same result; that is to say, prior to 1924, the average size monthly was 36 pages, whereas for the first 4 months of the year 1929, the average has been 98 pages. From a monthly average of 4 original articles we have grown to an average of 10 for the past few months, and in this connection we may report that there are a sufficient number of original manuscripts now in hand, without counting upon anything to come from the annual convention, to carry the Journal at full capacity until October.

We would not like to have the Journal valued solely on its quantitative development; if it has not likewise developed in quality, this growth in size cannot be considered praiseworthy. During the past 4 years we have gradually added and developed special departments which the Editor considered of value to readers either in the sense of entertainment or of postgraduate study. These departments and the reasons for instituting them are as follows: Ethics; because there is unquestionably a need for maintenance of ethical conduct, and because the modern medical student does not seem to be so well instructed in ethical principles as was his predecessor of former times. Economics; because too little attention has been paid by the average physician to the business side of his profession, and this seemed to be the best means of attracting his attention to economic problems. Esthetics; because the busy physician, immersed in scientific and humanitarian problems and overwhelmed by the constant and insistent demands of his own profession, gives too little thought to those arts and sciences with which he should be familiar and from which he might gain some relaxation. Collateral Reading; introduced quite recently for much the same reasons as given in reference to Esthetics, and to offer reading suggestions to the physician who is too busy to keep pace with such semiprofessional literature as his own patients are devouring. The Wom-

an's Auxiliary; because that young organization needs something in the nature of a directing influence to guide its forces into harmony with those of the state society. Lighthouse Observations; because we believed that a thoughtful review of recent literature on some particular subject each month would be preferable to abstracts selected at random and without any cohesion among those chosen. In Lighter Vein; because we hoped you would not lose sight of the fact that life itself is, at best, a joke. We have not mentioned editorials, current events, communications, or county society reports because they are standard parts of every society journal and call for no special comment; unless it be to say that in your Journal the county society reports surpass in scientific value those of any other medical journal in this country. And we digress here to express appreciation of the services rendered by our county society reporters and by those who have prepared for us reports of the scientific work of some of the hospital medical and surgical staffs.

In recounting at this time the various departments of the Journal, and presenting our reasons for having established them, we are not trying to exploit our own work but endeavoring to ascertain whether you are getting the kind of journal you desire. Despite some infirmities, we can still pat ourselves upon the back and approve our own work; what we want to know is whether or not you are satisfied with the Journal "as is". Do you wish its continuance on present lines? Would you like to have it still further developed through the publication of other matter of interest to the physician? Will you name any specific improvement that might be attempted? Is there any particular thing you would like to have added to or taken out of the present format? We would like these questions answered because it is now desirable to determine some definite model to be followed. We can make it whatever you wish; can increase the number of pages indefinitely, or cut it back to smaller size if you find the present form too expensive to maintain. Last year we were running an average of 72 pages of reading matter monthly. Recently, we have reached the average of 96. The indications are that we shall have original articles enough offered to carry an average of 10 per month, but we do not have to accept all that are offered if you wish to decrease the number that may be published. The various departments described can be eliminated if you have not found them worthwhile. The time and labor involved, aside from the cost of printing in running a Journal of the present size is considerable and it is for you to decide whether you wish your money spent in that manner. The Editor has developed what he considers a good state society journal, but he would like to have your views upon that subject and your instructions as to future procedures.

The only new suggestion the Editor has to offer, and upon this also he would like an expression of opinion, is the publication monthly of at least one editorial on scientific medicine, preferably signed articles by members of the society. We have been using editorial space mainly for the business and economic affairs of the society. In the April issue, we used as a signed editorial a communication on education in obstetrics written by Dr. Cosgrove. That gave us the notion of publishing a similar editorial monthly and we should like to know what you think of the suggestion.

(2) County Societies. We regret very much that illness interfered with our customary visits to the county societies and that during the year we found it possible to visit only 7 counties and attend but 9 county society meetings; the 2 extra meetings being in Atlantic and Bergen Counties. Contact with all county societies was maintained, however, by correspondence; and the newly inaugurated Annual Conference of County Society Secretaries and Reporters, so satisfactorily launched at Trenton, on January 26, served as a partial substitute for the former visits. It may be safely anticipated that this annual conference plan will prove of inestimable value in standardizing and harmonizing the work of our component county organizations and in facilitating the broader and all-inclusive work of the state society.

President Mulford and Secretary Morrison have not only matched the excellent record made last year by President Conaway and Dr. Morrison, of attending meetings of every one of the 21 county societies, but they have done yeoman service in stimulating the county societies in their public welfare labors. The Executive Secretary had the privilege of reading a paper at the midwinter session of the Tristate Medical Conference, upon the subject of "County Medical Society Opportunities". The report of that conference and of the preceding one having been published in full in the January, February and April issues of our Journal, and as county society work was therein discussed, from every angle, it is unnecessary to say more upon that subject at this time.

(3) Woman's Auxiliary. Last year we reported that the auxiliary had been tentatively organized in association with each of the 21 county medical societies. This year, we regret to report that in 2 counties the auxiliaries have been forced to suspend operations because of opposition on the part of a few members of those county medical societies. In both counties we had obtained the endorsement of the county society before communicating with the women eligible to form such an organization. In both counties the question was thoroughly discussed in open meeting, and in both counties authorization to proceed with formation of an auxiliary was given by a large majority vote; in one of these instances it was apparently unanimous. In both counties the will of the majority has been thwarted by one or two members whose opposition has rendered an organization of the women practically impossible. We recite these facts, not because the safety of the nation is threatened if an auxiliary be not instituted in every county, but because they show so clearly why organized medicine travels so slowly and so frequently fails to attain its objective. Until we learn to think and then to act in unison, to suppress personal feelings and play the game as an organized body should, we need not expect to function perfectly.

Those of you who have read the Journal are familiar with the work of the county auxiliaries during the past year. Only a few have as yet accomplished anything strikingly noteworthy, but that is because they are young, not yet fully organized, and that some of them have received but small encouragement from their respective county societies. At that, some of them have made as good a showing as some of the county

societies, and there is not a county branch of this society that cannot profit by developing this auxiliary. Let us give a single example of what the auxiliary can do for us: We had not intended to call upon the women for any political assistance until they had become better organized and had enrolled in membership a larger percentage of eligible members; but, during the winter, one of the cult bills pending in the State Senate reached a point where it gave us some concern. A public hearing was granted and it was necessary to call upon all the members of the Welfare Committee and all the presidents and secretaries of county societies for help. At the same time, realizing that 5 counties were represented by senators who were known to favor the osteopathic bill or whose positions were doubtful, we asked the officers of those 5 county medical societies to call upon their respective auxiliaries for assistance. In every instance the women responded and in some instances they did very effective work. One senator who was won over to our side, explained his action by saying that the osteopaths had brought heavy pressure to bear upon him in support of their bill and not a physician in his county had spoken to or written to him in opposition to that bill, but that he was suddenly deluged with letters from the Woman's Auxiliary. We have some reason to doubt the literal accuracy of that explanation but in effect it is probably true. At any rate, the results obtained in the 5 counties referred to are sufficient to prove that in the Woman's Auxiliary we have a potential force of great value, and that we should cultivate and direct that force.

(4) Educational Work. Most of the work in this department has for the past year been entrusted to the Field Secretary, Mrs. E. C. Taneyhill, and as she will present a detailed report of her own labors, we will omit further reference here to that feature of the state society program; except to compliment her upon the success attained and to express appreciation of the manner in which she has disposed of the work committed to her care and has developed new plans for the future. We heartily endorse what she has done and earnestly request your approval of the plans she will submit. Radio broadcasting from Station WPG, Atlantic City, was resumed for the third consecutive year, and in the period between December 7, 1928, and April 26, 1929, our disease prevention program was put on every Friday evening at 8.30—a total of 21 radio talks. The topics presented and the authors of such articles were:

Prevention of Diphtheria	All 8 of these by the Editor.
Colds in the Head	
Prevent the Spread of Influenza	
Prevent Complications of Influenza	
Present Status of Influenza Epidemic	
The Clean Mouth	
The Cancer Problem	
Prevention of Cancer	
Periodic Health Examinations	E. R. Mulford
Keeping Your Teeth Clean	Sylvanus F. Reese
Nasal Sinus Disease	Charles S. McGivern
Weaning the Infant	Walter B. Stewart
Prevention of Diabetes	Frederick M. Allen
Prevention of Diphtheria	Harold S. Davidson
Prevention of Heart Disease	Philip Marvel, Jr.
Is Tuberculosis Curable?	B. S. Pollak
Nervous Children	Joseph H. Marcus
Fate of the Fat	Harold B. Disbrow
Use and Abuse of Sun Baths	William Martin
Prevention of Deformities	Elmer P. Weigel

All of the above, save Dr. Reese, a prominent dentist of Atlantic City, are associated with the state society.

It has been our custom to mimeograph these talks and distribute them in advance to the newspapers of the state with a release date coinciding with the time of radio delivery. Efforts have been made to ascertain what proportion of those 140 newspapers actually published this material in whole or in part, but in those efforts we have not met with much success. We have received positive evidences of publication in 15 only of the 140 to whom copy was regularly sent. In this small group it may be noted, however, are such important papers as the Newark Evening News, Jersey Journal, Hudson Observer, Paterson Morning Call, Camden Courier and Atlantic City Press. It has not been feasible to keep an accurate accounting of the cost of distributing this material but we are able to make a reasonably accurate estimate of the cost of office supplies and postage going into this work and find that $239 has been charged up to these items. In other words, without taking into account the immense amount of labor put upon the office, the effort to disseminate these health talks through the press has cost approximately $240 to secure publication in 15 newspapers. Although there is no means of ascertaining how much benefit either the society or the public has derived from this procedure, we are inclined to doubt the advisability of its continuance in view of the fact that we have so many other demands upon the funds of the society.

Early in January announcement was made that E. R. Squibb & Company had arranged for a fifteen minute health program to be broadcast from Station WJZ, every Friday at 7:15 p. m. You are also aware of the fact that the American Medical Association maintains a daily broadcasting from Chicago and that in several states the boards of health put on occasional series of health talks. It may be considered whether our state society might not lay off for a time and devote its energies to the solution of other problems. We are willing to continue the work if it seems desirable and have informed the Atlantic City station that we will ask leave to announce a new program in October, but we would suggest that for the next year some of our county societies take up the plan and broadcast on their own account. The Atlantic County Society did carry a program for one year and will doubtless do so again if requested. At the same time, it may be possible for Essex, Hudson, Passaic, Monmouth, possibly other counties, to make use of facilities in their respective territories; and it may be that their local influence will produce better results than can be expected from the efforts of the state society.

We, therefore, recommend that whether or not you order continuance of the state society's broadcasting program, you request all county societies to launch educational programs of their own wherever local radio facilities can be secured. We ask you, further, to determine, in the event that the state society broadcasting is continued, whether we shall continue or discontinue the effort at newspaper dissemination.

It has been our privilege recently to make the

acquaintance of Dr. Ireland, the new Director of Physical and Health Education, in the Department of Public Instruction at Trenton, and to find him very willing to coöperate in the public educational program of this society. Dr. Ireland has some very interesting suggestions to offer regarding coöperation between the Department of Education and the State Medical Society, and we have asked him to address you in person so that his suggestions may lose nothing in value by having to be transmitted through a third party. You will hear from him later.

The matter of postgraduate education for members of the state society having been quiescent for some time, but ever in mind, we have made another attempt to devise a plan applicable to the needs of this organization and fitting the available facilities in New Jersey. As the plan requires negotiations with one of our educational institutions by the President and Recording Secretary, we shall leave the report of this matter to be presented by Dr. Morrison.

(5) Public Relations. Reference to the Board of Education leads us to say that the public relations of the state medical society are in excellent condition. The State Board of Health, State Board of Medical Examiners, Board of Education, Board of State Aid and Charities, State Tuberculosis League, State Hospital Association, State Bar Association, all are working with us on the most pleasant terms. In so far as we are aware, there is no discord at any point, even the lay organizations engaged in public health work showing a willingness to confer with us upon any points where conflict might be anticipated. We would like again to advise county societies that have not yet named a public relations committee to do so at the earliest convenient moment, as that is a means of insurance against trouble.

(6) Tristate Conference. These conferences, 3 per annum, continue to be held and, we believe, continue to increase in importance. Full reports of each meeting have been published in your Journal and we direct your attention especially to the reports printed in the January and the April issues of this year because they deal with problems of vital import to every member of this society. The officers of county societies, particularly, will find much in those discussions to aid in promotion of their own organizational work. We have asked the Budget Committee to continue its appropriation to meet New Jersey's share of the cost of these conferences.

(7) Antidiphtheria Campaign. Although somewhat slow getting under way and handicapped by the lack of funds needed for publicity, this campiagn for the obliteration of diphtheria is progressing satisfactorily. Mr. Osborne, Health Officer of East Orange, has made an admirable leader and has managed, despite many discouragements, to get local committees at work in every county. Ultimate success of the movement seems assured but we trust that every member will render such assistance as may be requested by the local committees toward carrying this campaign to a rapid as well as a successful conclusion.

(8) State Legislation. As the Chairman of the Welfare Committee is out of the country at this writing (April 30), and the Executive Secretary, when preparing the tentative report for that committee, felt some hesitancy in speaking for the committee, we reserved explanation of legislative matters for a freer discussion in this report. During the session of the General Assembly just closed, we were beset by the usual number of medical cult bills designed to break down the educational barriers of the existing medical practice law, and some of these new bills were even more vicious than those presented in former years. The opening gun was fired with a bill in which the osteopaths, chiropractors and naturopaths had apparently joined forces to demand a separate board of examiners to cover these several groups of so-called healers. A split among themselves soon led to separate bills being introduced by each of the above named organizations, and in these bills they exhibited their real purposes in seeking special boards of examiners; all were seeking the full rights and privileges of the licensed doctor of medicine, though disguising their aims in varied ways, and asked for license without having to take the same examination and without measuring up to the same preliminary educational standards. "Special privilege" was their watchword but it failed to carry them through. Fortunately, we were able once again to block their game.

The chiropractors and osteopaths brought strong pressure to bear upon the committees to which their respective bills had been committed in the House and Senate, and in response to our request, a public hearing upon S. 44 was granted. Acting upon authority given by the Chairman of the Welfare Committee before he started abroad, we issued a call to members of that committee and to the officers of all county societies, requesting that they make a point of seeing their county representatives regarding that bill and that they attend the hearing. We desire to take this opportunity of thanking those who responded and of expressing gratitude for the very hearty responses that were given. This was the first time in 3 years that the members of the profession had been called *en masse* to Trenton and the very large number of physicians attending that hearing on March 18 was most gratifying.

While our legislative efforts were directed mainly against the cult bills already referred to, there was one medical bill before the Assembly which we opposed because of the form in which it was presented but which deserves your thoughtful consideration because it is certain to appear again and because it was doubtless meant to deal with a problem that must be met squarely by the profession some day. A. 290 was entitled "An Act to regulate practice of surgery" and, briefly stated, its provisions were that no one should practice general or special surgery without first complying with all the requirements of the Medical Practice Act and then, in addition, spending from 2 to 4 years in special preparation for practice of surgery or any one of the surgical specialties, and giving proof before a special board of examiners that they possessed the requisite skill to enter upon such surgical practice. We had to admit that the bill was based upon a principle fundamentally sound but argued that in the form presented it was a highly idealized proposition for which neither the profession nor the public is prepared at the present time. If enacted into law, it would have drawn a very sharp distinction between the practitioners of clinical medicine, on the one hand, and the surgeon, gynecologist, urologist, rhinologist, etc., on the other. The

"family doctor", so-called, would have been prohibited from performing any major operation and many so-called minor surgical procedures.

The origin of this bill was obscure. It was reputed to have come from a member of this society but whether or not that be true is a matter of no vital importance; save for the fact that any member of this organization advocating legislation of that sort should have first submitted his proposition to this body, to the Welfare Committee, or at least to his own county medical society for consideration and endorsement. That surgery and specialism, with emoluments larger than are obtainable from medical practice, have become attractive fields for the general practitioner, and that members of the medical profession inadequately trained for surgical practice often stray beyond their proper bounds is patent to every observer. There is no doubt whatsoever that much harm is being done by incompetent, inexperienced persons attempting to perform major surgical operations. A tonsillectomy performed by a skillful operator, well-trained in his specialty, looks easy; but the same operation, attempted by a tyro, may result in disaster. The same may be said of many other surgical operations commonly performed. The public is becoming restive as a result of the number of deaths and otherwise bad results accruing from operations that should, under proper conditions, be practically without danger. Thinking members of the profession have been discussing this question *sub rosa* for some time. It is our opinion that the time has arrived for some leadership in this matter and we respectfully suggest that a special committee be formed to study the contents and purposes of the Assembly Bill referred to and to consider the advisability of preparing regulations or legislation to correct the evil that unquestionably exists and which has grown out of the fact that under existing law any one who has acquired a license to practice medicine can become by his own pronouncement, *ipso facto*, a general surgeon or any kind of a specialist he may choose.

In this connection we beg to direct your attention to an editorial in the April Journal wherein we recommended that a "fact-finding investigation" be conducted by this state society to study the question of unprofessional conduct; to find out whether fee-splitting, exhorbitant charges, ambulance chasing, and similar irregularities exist in this vicinity. We expressed doubt about fee-splitting to anything like the degree one might infer from the amount of talk heard about it from various sources. Since that editorial was written, however, we had the privilege of sitting in at a meeting of the Credentials Committee of the American College of Surgeons and we were shocked by the number of times the charge of fee-splitting, either openly or by innuendo, was made against candidates for admission to the college; candidates who are now members of this society. The new Constitution and By-Laws to be acted upon at this meeting contain provision for having the judicial council act as a Grievance Committee similar to that provided in the new Medical Practice Act of New York State. We hope you will invite that Council, or will appoint a special commission, to investigate these rumors of unprofessional conduct, with a view to exploding false rumors and punishing those who may be found guilty of violating the code of ethics.

(9) National Legislation. Under this heading, there are 2 important matters to be brought to your attention. The Sheppard-Towner law expires by limitation on June 30, 1929. Efforts were made at the last session of Congress to enact a similar but even more far-reaching law in the so-called Newton Act. Those efforts failed. The special session of Congress, recently called by President Hoover, was supposed to be for the purpose of dealing only with farm relief and modification of the tariff law, but scarcely had the Senate convened when a bill was introduced providing for extension of the Sheppard-Towner law. The American Medical Association is still fighting this proposition vigorously and asks for your continued support. We mention the matter now only because we know that some of our members—probably because they have not given the question serious thought, or have been influenced by the sentimental appeal of advocates of the law—are inclined to favor this legislation and we want to know if it is your will that we shall continue to aid the National Association in its fight against extension or reënactment of the Sheppard-Towner law.

The second matter relates to a bill, also introduced at this special session of Congress, to increase the penalties of the Harrison Narcotic Law. In our personal opinion that law has accomplished little or nothing in the line of its supposed purpose, and it has been a first-class nuisance to all honest practitioners of medicine. No sound reason has as yet been vouchsafed for increasing the penalties for infraction of the law, but the proposed changes will certainly add to the burdens of the physician. We think the pending amendments should be opposed. The American Medical Association will probably take action upon this question at its Portland meeting, in July. If you hesitate to anticipate the action of that body, perhaps it would be well to authorize us to act in accordance with such decision as may be arrived at by the A. M. A., or submit the question to the Welfare Committee for special study and with authority to act.

(10) Office Observations. As may readily be inferred from what has been said concerning growth of The Journal and the number of industries engaging our attention, the work of this office has increased tremendously during the past 5 years. The need for a home, or at least for adequate office space, is becoming increasingly insistent. The work of the society is hampered by the present lack of facilities, many documents that should be preserved have to be destroyed because there is no place for storage, and even manuscripts and Journal proof cannot be held for a reasonably proper length of time. We have asked the Trustees to give serious thought to this question.

We cannot close this report without once again recording our appreciation of the excellent service rendered by the office secretary, Miss Margaret Mahoney. Whether performing routine office work, substituting for lecturers on the radio, or filling any of the intermediate emergency demands, her name is "efficiency".

Very respectfully submitted,

HENRY O. REIK, M.D.,
Editor & Executive Secretary.

Observations from the Lighthouse

SOME DISEASES OF THE RECTUM AND COLON

The present day knowledge of diseases of the rectum and colon, and their relationship to more remote bodily disorders, is ably presented in a paper by William E. Applehaus (Kentucky Med. Jour., 27:54, Feb., 1929), and as affections of this portion of the body receive but scant consideration in medical literature, and we fear in medical practice also, we have abstracted portions of that article for presentation here.

The past few years have been productive of more genuine study and a clearer understanding of diseases of the rectum and colon and their relation to general health than has ever before been accomplished over an equal period of time. Probably no branch of medical science has undergone more radical changes, nor received such sudden recognition of their importance in explaining and relieving hitherto obscure ailments, as have the diseases of the lower bowel.

Heretofore we have considered the affections of the lower bowel as chiefly local and treated them accordingly. The addition of proctoscopic examinations as a routine procedure in diagnostic studies and the prompt recognition and treatment of these diseases has demonstrated the important rôle they play in systemic or remote disorders.

Benign tumors of the rectum or colon are exceedingly rare. The main ones are myomas arising from the muscular coats of the bowel, angiomas which are congenital, multiple adenomas due to infection of Bilhorzia Hematobia, papilloma and multiple polyposis. Polyposis is of especial interest as there is no benign process in which there is a higher incidence of ingrafted malignancy.

There has long been ardent discussion as to the importance of syphilis in the production of strictures in the rectum and colon. Some writers have stated that all strictures of the large bowel are due to syphilis. While lues does play an important part in producing strictures we believe that many of the fibrous strictures are the result of long standing chronic inflammations. Spasmodic strictures, while rare, may occur at any portion of the large bowel and cause pronounced obstruction.

The most frequent site of cancer in the large intestine is in the rectum and lower sigmoid. Eighty per cent of the cases are ano-recto-sigmoidal. The sites next in order of frequency are, cecum, hepatic flexure, splenic flexure, descending colon, transverse colon and lastly the ascending colon.

Fully developed cancer wherever located in the large intestine usually produces fairly typical symptoms; alternating diarrhea with constipation, colonic distension, soreness, tenderness, mucoid discharge and loss of weight. Unfortunately, early cancer of the large intestine gives rise to but few symptoms, and, unless greater attention is paid to vague manifestations referable to the intestinal tract, and more thorough diagnostic studies made, cancer will rarely be recognized early enough to greatly benefit the patient.

The symptomatology of the non-inflammatory group is more or less typical and the effects on the patient are rather well defined. The increasing use of the proctoscope and barium enema and x-rays have readily identified these disorders and they are now receiving adequate treatment.

Our understanding of the inflammatory type of ano-recto-colonic disease is not so clearly defined and is, in the main, still in the formative state as regards etiology, relation to other diseases and methods of treatment.

This group embraces all forms of colitis, sigmoiditis, proctitis and nearly all recto-anal diseases including hemorrhoids, abscesses, fissures, fistula, cryptitis and the great majority of pruritic cases.

Any of these inflammatory diseases may affect various parts of the colon or even the entire large bowel. While the pathology may be similar in character in any portion of the bowel affected, the symptoms may vary widely depending upon the locality of the disease. As a rule these inflammatory processes extend downward and not from below upward.

A great deal of investigation has been done to determine the exact cause of these inflammatory manifestations. Some authorities have taken the stand that the infection is primary in the large bowel. It is our opinion, however, that a great many of these cases are either the aftermath of some constitutional disease or they are secondary to foci elsewhere in the body, namely: infections of the teeth, gums, tonsils, posterior nares, accessory sinuses, gall-bladder disease and appendicitis.

Very frequently the secondary infection in the colon is far more intractable than the primary cause. Hence, the removal of septic or toxic foci does not always relieve them and the colon may be dispensing secondary products of infection after the primary ones have been effectively dealt with, that are more far-reaching and disastrous to the health and well-being of the individual than the primary cause was. An eminent authority once said that it takes 2 years of energetic treatment to cure a colitis and then the patient will not be entirely well.

The successful treatment of inflammatory infections of the large bowel centers chiefly around the removal of all septic foci, careful dietary regulations, adequate constitutional treatment and well appointed local applications to the mucosa itself in the form of medicated colonic irrigations. Proper cleansing and drainage are just as essential in inflammatory conditions of the colon as in any other type of infection. The use of laxatives is not even a poor substitute for enemas in these cases.

In Lighter Vein

Helping Hubby

The young doctor sat wearily down in his easy chair, and asked his wife affectionately:

"Has my darling been lonely?"

"Oh, no!" she said, "at least, not very. I've found something to do with my time."

"Oh;" he said. "What is it?"

"I'm organizing a class. A lot of women are in it, and we're teaching each other to cook."

"What do you do with the things you cook?"

"We send them to the neighbors."

"Dear little woman," he said, kissing her, "al-

ways thinking of your husband's practice."—Vancouver Province.

High Visibility

Doctor—"Where shall I vaccinate you?"

Modern Girl—"Oh, anywhere; it's bound to show."—Blue Gator.

A Stone's Throw

If Carrie Nation were living today she'd be smashing speak-easy windows. All she'd have to do would be to stand in the middle of a block, close her eyes and throw a rock.—Judge.

Rah for the Muzzle

Willie—"Did Mr. Edison make the first talking machine, pa?"

Pa—"No, my son. God made the first talking machine, but Edison made the first one that could be shut off."—Bell Telephone News.

Try It, and See

"I don't see why having your car overhauled should be such a depressing experience."

"You don't, eh? Well, it was overhauled by a motorcycle cop."—Life.

If the country were as much concerned about the prevention of automobile accidents as about the prevention of flu, we wouldn't be so badly run down.—Atlanta Constitution.

Hope

Doctor—After a conference with my 3 colleagues on this case we each give you a year to live.

Patient—Is that sentence to run concurrently or consecutively?—Judge.

Cost of the Truth

A negro was charged with theft and his lawyer decided to put him in the witness box.

"Sam, if you tell a lie, you know what will happen, I suppose?" said the judge.

"Yes, suh," replied Sam. "I'll go to Hades and burn a long time."

"Quite right," declared the judge. "And you know what will happen if you tell the truth?"

"Yes, suh," said Sam. "We lose de case!"—London Opinion.

Naughty, Naughty!—

On top my thoughts are nice and neat
With noble words and manners sweet;
But when some crisis stirs my mind,
I'm just surprised at what I find.
—Boston Post.

Wrong Tackle

The station-master rushed out of his room after hearing a crash on the platform. He discerned a disheveled young man sprawled out perfectly flat among a confusion of overturned milk cans and the scattered contents of his traveling bag.

"Was he trying to catch the train?" the station-master asked of a small boy who stood by admiring the scene.

"He did catch it," said the boy, "but it got away again."—Drexerd.

Lay Mirror Reflections

THE WILL TO BE FOOLED

(New York Times, April 29, 1929)

So long as people are afflicted by persistent human ills they will seek relief, either from persons qualified to ameliorate their sufferings or from smiling, firm-voiced quacks who claim higher powers. Mr. A. A. Roback, writing in the May Forum, has watched for many years the growth of a cult which has now reached such proportions as to disturb him and other scientific psychologists. It was to be expected that serious investigation of the intricacies of the human mind would be seized upon and capitalized by the smooth gentry who may know nothing of science but who have an excellent working knowledge of human nature. The findings of every patient, painstaking scientist are material suited to the easy adaptability of the charlatan. He whips up the moderate interest in a new discovery or theory by flamboyant descriptions of their practical use. A new drug, a new use for electricity, a new property found in some foodstuff, a new theory of nerve or muscular activity is announced by honest research workers, and he is off at once to show the sick, the poor, the timid and the unhappy how he can apply it to make them well, rich, fearless and content.

Quacks have never had more inviting waters to fish in than are furnished by the vast sea of the popular mind. In attaching themselves to more concrete sciences they have floundered when confronted by real knowledge. But psychology is intangible. It offers a fresh and stimulating vocabulary to the charlatan, who dazzles his victims with such flashing phrases as "subliminal reserves" and "make yourself what you will: great, grand, splendid, supreme in mind and thought, honored wherever you are known". He does not give away his secrets for nothing, but who would not pay $10 or even $50 to find out how to win a lovely bride, a Rolls-Royce, a beautiful home, a host of friends, and a business increased a thousand per cent?

Most of the quack psychologists have a title of some sort, bestowed by an equally shady "college". They are doctors, judges or mental engineers. Like genuine scientists, they are strong for specialization. If the victim is not interested in the "master mind" offering to explain "How to Broadcast Your Thoughts at Will and Produce Action", he can turn the page to an "Applied Psychlogist" who will teach "How to Grow Brains", or "How to Sell by Means of Thought Transference". Certain magazines are filled with articles and advertisements dealing entirely in such magic. Mr. Roback estimates that there are about 15,000 merchants of psychic handshakes in this country, and that they spend close to a million dollars a month on publicity.

His anxiety over the dupes of the pseudo-psychologists has been increased as the numbers of both have grown. What to do about it seems uncertain. He wants a well-directed campaign, headed by an office similar to the better business bureaus. Such a service might prevent a few frauds, but so long as the "pep vendor" can demonstrate by his own host of friends and increased business the value of his system, incompetents will fairly beg him to fool them.

HIGH COURT UPHOLDS STATE OPTICAL LAW

(New York Times, April 23, 1929)

The United States Supreme Court today upheld the validity of the New York State act which makes it unlawful to sell at retail "any spectacles, eye-glasses or lenses for the preservation of vision unless a duly licensed physician or fully qualified optometrist, certified under this article, be in charge of and inpersonal attendance at the booth, counter or place where such articles are sold".

The cases were brought by dealers in eyeglasses who sought injunctions to prohibit enforcement of Chapter 379 of the New York laws of 1928 in amendment of the state education law. The cases decided today were those of William Roschen and S. S. Kresge against Hamilton Ward, Attorney General of New York; Joab H. Banton, District Attorney for New York City, and Williston W. Bissell.

The record showed that the complainants sell only ordinary spectacles with convex spherical lenses, which merely magnify, and which it was contended, could do no harm to the sight. In the purchase of such spectacles customers make their own selections and buy glasses for small amounts. It was argued that the cost of employing an optometrist or other expert assistance to provide examinations would make the complainants' business impossible. It was further contended that in the ordinary case of eyes only grown weaker by age, the requirement of the State law is unreasonable.

"But the argument most pressed is that the statute does not provide for an examination by the optometrist in charge of the counter," the court said. "This, as it is presented, seems to us a perversion of the act."

Associate Justice Holmes, who handed down the opinion, declared the complainants had averred that the law did not go far enough. "But," he added, "there is no canon against using common sense in construing laws as saying what they obviously mean. Moreover, as pointed out below, wherever the requirements of the act stop there can be no doubt that the presence and superintendence of the specialist tend to diminish an evil.

"A statute is not invalid under the Constitution because it might have gone further than it did or because it may not succeed in bringing about the result it tends to produce. Of course, we cannot suppose the act to have been passed for sinister motives. We will assume that there are strong reasons against interference with the business as now done. But it is obvious that much good would be accomplished if eyes were examined in a great many cases where hitherto they have not been, and the balancing of the considerations of advantage and disadvantage is for the Legislature, not for the courts."

"We cannot say, as the complainant would have us say, that the supposed benefits are a cloak for establishing a monopoly and a pretense."

The decree of the District Court of the United States for the Sourtern District of New York upholding the State law was affirmed.

The Woman's Auxiliary

Mrs. Charles B. Forcey, President of the Woman's Auxiliary to the Medical Society of Pennsylvania, in a letter to her associates recently (Pa. Med. Jour., Nov., 1928) said:

"Daily it grows upon me with tremendous import the great tasks and duties before me and the seriousness of the important measure which we have before us. It is my fondest wish that we shall be able to accomplish these tasks and see our most important issues carried to their goal.

One had but to be present at the recent meeting at Allentown to appreciate the things which the various county auxiliaries have accomplished during the past year and to see the enthusiasm and good-fellowship which exists among the members from all parts of the State.

It would expedite matters and prevent undue confusion if each county auxiliary would send a monthly report of its meeting to our Chairman of Education and Publicity.

The approaching presidential election and the nearness of the holiday season must not for an instant distract our attention from the important measures at hand. First of all, we must consider the Chiropractic Bill. 'Danger Ahead' and copies of the educational petition have been sent to all the auxiliaries by Dr. Correll, and it is hoped that the latter will be immediately returned to him with many signatures attached. Also, it is hoped that every member has done her part in making the Fifty Million Dollar Bond Issue a reality instead of a possibility."

The above quotation embraces several items of import to the auxiliary of our own state society, and to individual county branches. In the first place, there are indication that our neighbor state has an active auxiliary doing effective work, and we may well emulate the example set for us. That others have their troubles not dissimilar from our own is evidenced in the appeal for monthly reports from the county branches; the Editor of this Journal has begged repeatedly for reports of each and every auxiliary meeting but comparatively few are supplied—though he hears that other meetings have been held. If a meeting of your auxiliary is not recorded in these columns, ask your secretary—"why".

The reference to action against a "Chiropractor Bill" interests us because it became necessary last month to call upon 5 of our county society auxiliaries for assistance in the fight against chiropractic and osteopathic legislation at Trenton. We are happy to inform you that all 5 organizations responded promptly and all rendered effective service. Need of auxiliary help in the political field is apt to increase rather than diminish; so once again we appeal to you to increase your working strength by increasing your membership.

As a note of interest to auxiliaries that will soon be choosing new officers, we quote another item from the Pennsylvania Journal:

"This year, for the first time, the Woman's Auxiliary to the Medical Society of the State of Pennsylvania has chosen a president-elect, naming Mrs. Walter J. Freeman, of Philadelphia. Mrs. Freeman, the daughter of a physician, the widow of a physician, and the mother

of a physician, is, by reason of her long association with the medical profession, peculiarly fitted for the office of president which she will occupy a year from now. Mrs. Freeman is experienced in organization work, and will make a very efficient and capable executive officer."

We possibly have in this state some women who can qualify with as many and intimate relationships to physicians, and they should be sought for and drafted into service.

State Society Auxiliary

Reported by Mrs. George A. Rogers

A meeting of the Executive Committee of the Woman's Auxiliary to the Medical Society of New Jersey was held at the Trenton Country Club, Thursday, April 18, Mrs. M. W. Reddan acting as Chairman of the Reception and Entertainment Committee.

This meeting being open to members of the county auxiliaries, the attendance was gratifyingly large, 83 being present at the luncheon and business session.

The ladies listened with pleasure to a short address by Mrs. A. H. Lippincott, who gave words of encouragement regarding growth of the organization. She told us of an informal but interesting meeting in Chicago at which important suggestions were made. Among these, it was urged that members of the auxiliary should serve on health boards whenever possible, and also to coöperate wherever there is opportunity for counteracting the influence and propaganda of cults.

A general invitation was given to all members to attend the national convention in Portland, Oregon, in July. It is at these large meetings that we gather new ideas for the working plans of our auxiliaries, and come away stimulated to greater efforts by seeing what has been done by others.

The business session was opened by the Secretary, Mrs. George N. J. Sommer, giving a report of the executive meeting in January.

Mrs. Hunter, the Treasurer, reported methods she is installing for a uniform system of collecting dues, and of a concise and complete filing system for permanent records in the Treasurer's department.

Mrs. Shirrefs, Chairman of Public Health Committee, spoke of her efforts to stimulate the county auxiliaries toward dissemination of "Hygeia".

There being some counties still requiring organizational development, it was suggested that a committee be formed, under the Field Secretary, Mrs. Taneyhill, to be on call for visits to such organizations with words of advice and encouragement. The members chosen were: Mrs. George L. Orton, Mrs. A. H. Lippincott, Mrs. Ephraim R. Mulford, and Mrs. James Hunter, Jr.

It was reported that at the national convention a recommendation was made that the state auxiliaries should incorporate.

The resignation from office of President-Elect, by Mrs. R. I. Downs, was accepted with regret.

It was the unanimous desire of the body that our President, Mrs. George L. Orton, should take office for a second term. This, with words of gracious appreciation, she definitely declined. Mrs. Ephraim R. Mulford was then unanimously elected to the office of President-Elect.

The President, Mrs. George L. Orton, with well chosen words, expressed her gratification in having so many members present, and of her faith in the success of the organization. Its growth though slow is sure, and the enthusiasm of those working for and with it gives promise of great progress in the future.

Some of the items reported by county officers were:

Atlantic. Mrs. Salisin reported the raising of $274.25, by a card party, of which $192 was expended on the Children's Ward of the Atlantic City Hospital, $75 for a pelvic brace for a boy crippled in an accident, and $10 to aid the Boy Scouts. In response to an appeal by Dr. Reik, the women had interviewed their state senator and 2 assemblymen concerning osteopathic and chiropractic legislation, and had received assurance those bills would not pass. "All monthly meetings are announced several days in advance, and immediately after meetings the proceedings are reported to the local press." Aid is being given to the Antidiphtheria Campaign.

Camden. Mrs. Casselman reported that the auxiliary regularly supplies "Hygeia" to all public schools, public libraries and Y. M. C. A. and Y. W. C. A. reading rooms. Holds quarterly meetings and has this winter held 2 largely attended meetings addressed by Dr. Mabel Grier Lesher and Mrs. E. C. Taneyhill; also obtained 5 speaking engagements in the county for Mrs. Taneyhill.

Essex. Mrs. Rogers reported supplying of "Hygeia" for the following places: Y. M. C. A., Orange; Y. M. C. A., Newark; Y. W. C. A. (colored), Orange; Woman's Club, Orange; Dearborn Morgan School, Orange; Public Library, Montclair; Public Library, Glen Ridge; Public Library, Bloomfield; Public Library, Caldwell; Public Library, Maplewood; Country Club, Maplewood; Woman's Club, Caldwell; Community House, Vaux Hall; Richards' Dancing School, Newark; Hahne's Department Store, Newark; Kresge's Department Store, Newark.

The auxiliary is conducting a membership drive, and all members were asked to use their influence against certain cult legislation at Trenton.

Gloucester. Mrs. Hunter reported this group meeting in alternate months, at the same time and place as the county medical society, and being invited to join in the social hour after each body has transacted its own business; on 2 occasions the auxiliary has been invited to the society meeting, when the program was one of lay interest. At one of the auxiliary meetings a woman physician read a paper on "Medical Ethics for the Physician's Family". Mrs. Taneyhill has been given a number of engagements in Gloucester County.

Hudson. Mrs. Winter said considerable progress has been made in organization work and, by aid of a card party, a goodly sum of money has been raised for philanthropic use.

Middlesex. Mrs. Howley reported the holding of regular meetings and efforts to promote a larger membership.

Passaic. The auxiliary has 58 members enrolled, and an average meeting attendance of 22 to 26. In addition to fighting the cult bills, this organization took part in the successful fight to prevent the politicians from transferring control of the county tuberculosis hospital from an efficient board of managers to the local freeholders.

Union. Mrs. Kinch reported the raising of funds that had enabled the auxiliary to place

"Hygeia" in every public library in the county. At one meeting, Dr. Grace Robinson, of Plainfield, gave an address upon—"What Shall We Tell Our Girls", and, according to the reporter, "if girls generally had sex matters presented to them by their mothers in as pleasing, convincing manner, there surely would be much less wrongdoing".

Camden County

Reported by Mrs. T. P. McConaghy

A meeting of the Woman's Auxiliary to the Camden County Medical Society was held at the Camden City Dispensary on Tuesday evening, March 12, the President, Mrs. A. J. Casselman, presiding.

In addition to the usual business meeting, members were again urged to secure engagements for Mrs. Taneyhill.

Mrs. Harold F. Westcott reported that "Hygeia" is now in every High School and Library in Camden County.

In regard to the change in dates of election of officers and payment of dues, as set forth at the annual meeting of the State Auxiliary Directors in January, motions were made and seconded that amendments to the constitution be passed.

Dr. A. Haines Lippincott, discussed with us the recent and very important New Jersey Legislative subject, that of the combined chiro-osteo-naturopathic bill. It was deemed our duty to make personal visits to our Assemblymen, with a view of having all persons desiring to practice treatment of human ailments or diseases pass the same educational requirements.

It was a pleasure to have Mrs. Mulford, of Burlington County with us.

We all appreciated and enjoyed very much, the entertainment by Mrs. Taneyhill and her assistant, of the showing of a large number of Autochromes. These Autochromes are true color photographs and are shown, through a special lantern, on a screen. Each, as shown, was described by Mrs. Taneyhill. They are marvelous, but must be seen to be appreciated.

After the meeting adjourned the doctors were joined and refreshments served.

Essex County

Reported by Mrs. George A. Rogers

A regular meeting of the Woman's Auxiliary of the Essex County Medical Society was held Monday, March 25, at the Academy of Medicine, Newark.

Mrs. E. C. Taneyhill gave a most delightful illustrated lecture on the "Life of Louis Pasteur". The attendance was regretably small, owing to inclemency of the weather, but the members present were enthusiastic in their appreciation of the lecture. A social half-hour followed for which choice refreshments had been provided and for which the society was indebted to Mrs. J. H. Brothers and her committee.

Up to date "Hygeia" has been placed with 17 associations, this society paying for the subscriptions with money raised for that purpose.

Gloucester County

Reported by Mrs. Henry B. Diverty

On April 25, our Auxiliary held a business meeting at the Woodbury Country Club. The president, Mrs. James Hunter, Jr. presided. Mrs. Underwood reported that Mrs. Taneyhill had lectured at the State Normal School at Glassboro and at the High School in Woodbury, and an engagement was made for April 29 with the Parent-Teacher Association of Clayton.

Amendments to our by-laws were made, viz., Article 4, the president shall be elected to serve 2 years instead of 1 year; and Article 5, the annual meeting shall be held in October instead of April or May.

The State Meeting to be held at Atlantic City in June, the following delegates were appointed: Mrs. J. Harris Underwood and Mrs. Luther M. Halsey; alternates, Mrs. Chester I. Ulmer and Mrs. Henry B. Diverty; alternate to the president, Mrs. Samuel F. Ashcraft.

The doctors were holding a business meeting in an adjoining room. After adjournment, the ladies were invited to join them to hear Dr. Hughes, of Philadelphia, tell of his recent trip to the Balkans, illustrated by lantern slides. Dr. Hughes took the photographs and sent them to Japan for coloring. They seemed to be of superior type. The talk was most interesting. A social hour followed. Supper was served by the chef of the Country Club.

Hunterdon County

Reported by Miss Ida Mable Apgar

A regular meeting of the Woman's Auxiliary to the Hunterdon County Medical Society was held at the home of its President, Mrs. G. B. Tompkins, Flemington, April 23, at 10 a. m.

Mrs. G. B. Tompkins and Mrs. L. A. Hamilton were elected delegates to the Woman's Auxiliary to the State Medical Society meeting, to be held in Atlantic City; Mrs. F. G. Clark and Mrs. F. H. Decker are their alternates.

Our guest, Mrs. Taneyhill, was then introduced and gave us an outline of work which our auxiliary could do. The plans were instructive and interesting as only Mrs. Taneyhill can make them.

This is our second meeting and we find that there is much for us to do. We hope to use this program in the most satisfactory manner to meet general and local needs.

The meeting then adjourned. Dinner was served at the Union Hotel.

Union County

Reported by Mrs. H. V. Hubbard

At the regular meeting of the Auxiliary of the Union County Medical Society, held in the Nurses Home of Muhlenberg Hospital, 17 members were present.

Dr. Grace Robinson spoke on "What Shall We Tell Our Girls?" It was very interesting and highly commended by all.

Three members accepted the invitation to attend the State Auxiliary meeting and luncheon in Trenton on April 18.

Delegates and alternates to the Annual Meeting of the State Auxiliary in Atlantic City, June, were elected.

Mrs. Russel Shirrefs, of Elizabeth, was elected President to fill out the rest of this term.

It was voted to hold another card party in the home of a member, this spring.

It was also voted to place copies of "Hygeia", for one year, in the reading rooms of the libraries in the county.

Three new members were present.

After adjournment the members joined with

the Union County Medical Society, in the Nurses' dining-room of the hospital, and enjoyed refreshments and a social hour.

Warren County

Reported by Mrs. G. Homer Bloom

The Annual meeting of the Woman's Auxiliary to the Warren County Medical Society was held in Washington, April 17. Mrs. Lawrence Bloom presided.

Election of officers followed and Mrs. Bloom was reëlected President.

Mrs. Taneyhill was present and outlined the work being done throughout the various county organizations. The members were greatly appreciative and expressed a desire of securing engagements throughout the county for Mrs. Taneyhill to speak.

County Society Reports

ATLANTIC COUNTY

John Irvin, M.D., Reporter

The regular meeting of the Atlantic County Medical Society was held on Friday evening, April 12, at 8:30, at the Hotel Chalfonte. The meeting was called to order by President Poland. The minutes of the previous meeting were read and approved.

Dr. Poland reported 2 applications for membership, and they were referred to the Board of Censors.

Dr. Poland read a letter from Dr. Kilduffe stating that the Hospital Laboratory will take on 2 students for training. There is no tuition and no salary. Applicants should be referred to Dr. Kilduffe.

Dr. Marcus reported that the date of maturity of the Liberty Bond held by the society had expired several months ago and that the sum of $100 is now in the treasury. A motion was made and seconded that this sum be kept in the General Fund.

Dr. Conaway reported that the society had been asked to coöperate with a committee appointed by the Mayor to celebrate the Festival of Light, from May 31 to October 1, in connection with opening of the new Convention Hall. A motion was made and seconded that this cooperation be extended.

Dr. Salasin stated that the Antidiphtheria Campaign Committee is planning a drive in Atlantic County within a week or so and that he earnestly desires the support of the county medical society. He stated that further information regarding this drive will be received in the mails and advertised in the papers.

Dr. Poland introduced the first speaker of the evening, Dr. Joseph H. Marcus, of Atlantic City, who read a paper on "A case of Congenital Lymphangiectatic Edema". (To appear in full in a later Journal.)

The next paper was presented by Dr. Bela Shick, of New York, on "Nutritional Disorders in Infancy". Dr. Shick said, in part: In asking me to talk about nutrition you have selected a very difficult problem. Every pediatrician tries to explain the various questions which arise in this connection, and from this point of view it is well to go back to history, to review the different theories and what we have learned from them.

Some 40 years ago attempts were made to explain nutritional disorders on an anatomico-pathologic basis, but later we realized that we cannot so differentiate nutritional disorders. Next came the chemical era; stress was laid on the fact that there was so much casein in cow's milk, and it was thought this was hard to digest. We still believe it advisable not to use cow's milk without dilution. The chemical constituents of cow's milk were minutely studied; as a result percentage feeding came into vogue, and it is still used.

Next came the bacteriologic era; studies were made to see whether nutritional disorders were due to bacillary infections. As a result came pasteurization and the modern handling of milk supplies (milk hygiene). Some gastro-intestinal disorders may be due to bacterial infections, and it is important to have a good milk supply because use of pasteurized milk and strict control of the supply have been shown to prevent gastro-intestinal disorders.

Next was the serologic era. We learned the difference between proteins from different sources and that human milk never can be replaced entirely by cow's milk. The transmission of antibodies and other useful ferments is possible by feeding breast milk. Human milk acts like a transfusion and by that means we can bring immunity to the body of the child.

Next came a revival of the chemical era with special reference to salt and sugar; we were afraid of sugar and salt. The bacterial era also is undergoing a revival, especially in Germany. There is much discussion again about the effects of ascending infection by Bacillus coli, the so-called endogenous infection. The chemical era is also reviving, as concerned with the Ph concentration of the stomach content and its relation to nutritional disorders. Lactic acid milk is used to get better Ph concentration.

The vitamin era now comes in and though we are very much impressed with the facts I think it is a little over-done. The consequence of this vitamin era is the early feeding of orange juice and cod-liver oil, and earlier introduction of vegetables. Correct nutrition and sufficient supply of vitamins is looked upon also as of great importance for the general resistance of the child.

It is very difficult to classify the gastro-intestinal disorders on any one theory. What I would like to give you is a clinical classification based on tolerance of the gastro-intestinal tract. We talk, in nutrition, about the so-called minimum, which is that amount of food intake necessary to supply the basal needs of the child; corresponding about to the basal metabolism. Maximum of intake is the greatest amount of food possible to digest without the child's getting gastro-intestinal disorders; it is the limit of tolerance. Normally we should feed between minimum and maximum, on the level of the optimum. If you feed below the minimum, the child is starving; and above it, he is getting too much. It is safer to feed a child half-way between the minimum and the maximum. The optimum in the first months of life is about 15% of the body weight (kg.) in breast milk in 24 hours. There can be a disproportion between the food intake and the tolerance of the child. This disproportion may be qualitative or quantitative. In the former, the food is not adequate for the age of the child; feeding meat to the

new-born child would be an example, or feeding adulterated or infected milk. Good milk supply guards against the qualitative disproportion.

If you feed a child too much, you have quantitative disproportion in a normal tolerance. Every adult knows that this is possible. I use the comparison that if you are invited to dinner, you come with a normal tolerance; you eat too much; you get gastro-intestinal disorder. We teach not to overfeed an infant. The best kind of milk without any bacterial infection can harm the child if it is given in too large amounts.

Of much more importance is the fact that children may have a lowered tolerance. What brings about this lowered tolerance? First, overfeeding of a child with normal tolerance. We know that transgression of normal tolerance leads not only to acute disorders, but after this the tolerance is lowered. Second, parenteral infections; we should never forget that a child's gastro-intestinal tract is in the first year of life very vulnerable. Many infections can radiate to it. Very frequently you find symptoms of a damaged gastro-intestinal tract. Examples of such parenteral infections are measles and vaccine, and there is much discussion about otitis media and mastoiditis as a cause of gastro-intestinal disorder.

A third cause of lowered tolerance is the excessive heat of summer. We do not know exactly how this works; heat may lower tolerance on the basis of reduction of secretion of digestive juices; on the other hand, heat leads to easier disintegration of milk by bacteria. For the United States the heat question is still very important. It is interesting to note how rare acute gastro-intestinal disorders are in winter; in New York it is hard to demonstrate cases of this kind to students.

As regards therapy, let us take prophylaxis first. Do not overfeed the child. It is better to keep near the optimum. Second, guard against infections. Guarding against rickets will help not only rickets, but other conditions as well. The same thing is true about the vitamins; we increase the immunity by proper vitamin feeding. In treating the mild form, reduce the amount for 24 to 48 hours to the minimum, giving the child the same kind of formula but less of it, then slowly increase it up to the optimum feeding. The severe form of gastro-intestinal disorder develops from a mild disorder, and if you are early enough you can prevent this. In the medium form of disorders, I would go down to zero, from 12-24 hours, which means almost no caloric intake at all, only fruit with a little sugar. There is no doubt that a short starvation reinstates tolerance. In feeding we must increase our amount slowly as the tolerance rises slowly. You cannot give the minimum before 3 or 4 days. If you have reached this minimum you can stay on it for 2 or 3 days. Don't change your formulas too frequently. You cannot judge the immediate effect of any change.

Very important is the treatment of the dehydration. If necessary, supply with repeated subcutaneous or intravenous injection. Physiologic salt solution or, better, 5% dextrose solution, is advisable. Furthermore, repeated blood transfusions give satisfactory results.

Discussion followed by Drs. Miller and Marcus, and the meeting closed with a rising vote of thanks to Dr. Shick.

General Staff of Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The monthly scientific meeting of the General Staff of Atlantic City Hospital was held March 22, being called to order by Dr. C. Coulter Charlton, president.

Dr. D. Ward Scanlan, Chief of Medical Service, outlined his service for the 3 months, November to January, and presented a statistical report compiled by Dr. Harold S. Davidson, Associate, with a classification of 175 patients.

Dr. Davidson's report emphasized the importance of correlating clinical findings with pathology noted at necropsy; the autopsies obtained in this service ran over 91%. He further added that the pneumonias were this year especially frequent, there being 22 of the uncomplicated lobar type; while other patients had lobar pneumonia with advanced cardiac disease, bronchial pneumonia, and tuberculosis pneumonia. It is gratifying to report but 6 deaths in this group; 3 lobar pneumonia; 2 bronchial pneumonia and 1 tuberculous pneumonia. It is to be remembered that this service covered the epidemic of influenzal infections and many patients were admitted in moribund condition. No deaths resulted from influenza *per se*, but there were deaths from its complications, such as pneumonia and meningitis. The influenzal bacillus was recovered from the sputum in the pneumonia cases and from the spinal fluid in the cases of meningitis.

Causes of death were as follows:

Lobar pneumonia	3
Tuberculous pneumonia	1
Bronchial pneumonia	2
Diabetic coma	2
Diabetis with gangrene	1
Diabetis with hemiplegia	1
Cerebral hemorrhage	1
Uremia (nephritic)	4
Chronic myocarditis	3
Chronic myocarditis luetic	2
Myocarditis, chronic nephritis ascites	1
Aneurysm ruptured	1
Chronic nephritis, arteriosclerosis hypertension	1
Meningitis, meningococcic	1
Meningitis, influenzal	1
Carcinoma of stomach	1
Carcinoma of pancreas	1
Lues, tertiary	1
Chronic bronchitis cardiac	1
Mitral regurgitation	1

Dr. D. Ward Scanlan reported a case of Banti's disease which presented pulmonary hemorrhage as the salient feature. A man, 26 years old, presented signs of passive congestion at the base of the lungs, markedly enlarged and firm spleen, and enlargement of the liver; some ascites, skin slightly jaundiced, and clinical evidence of anemia. Roentgenographic examination confirmed physical findings in the lungs. Important laboratory findings: erythrocytes 2,930,000; 50% hemoglobin; color index 0.9; blood Wassermann positive; tubercle bacillus not found in the sputum upon 6 consecutive examinations at daily intervals. The patient died one week after admission. Autopsy report by Dr. Kilduffe stated that "the spleen showed diffuse interstitial sclerosis with marked engorgement of the sinuses by red blood cells, atrophy and hyaline degeneration of the Malpighian corpuscles, sclero-

sis of the large vessels; a picture consistent with Banti's disease".

The report of Dr. Thomas D. Taggart's surgical service for 3 months, November to January, was presented by Dr. V. Earl Johnson, who stated that of the 216 cases recorded 112 were of traumatic origin and 168 operations were performed. There were 30 operations for appendicitis; 12 after rupture, but no deaths; 2 cases of acute hemorrhagic pancreatitis, and both recovered; 5 cases of empyema, successfully treated by the closed method; 4 cases of ruptured ulcers, with 1 death, 1 recovery, 2 on treatment; 2 widespread subaponeurotic infections of the scalp recovered; 18 cases of fracture of femur were treated, and only 1 required open operation and 1 skeletal traction; 9 verified fractures of the skull and 13 cases of concussion of the brain.

Report on Spinal Anesthesia

Last year we reported 1 case, an open reduction of fractured femur associated with prostatic obstruction, in which we used spinal anesthesia; every effort had been made to effect reduction without use of an anesthetic and we felt that inhalation anesthetics were out of the question because the risk was too grave. After successfully operating upon this patient, I realized that spinal anesthesia, contrary to my preconceived ideas, had a definite field of usefulness, and such realization stimulated me to make a special study of this form of anesthesia. I then made trips to Babcock's Clinic, in Philadelphia, and to Teaneck, N. J., to witness Dr. Pitkin's work. The latter has done a great deal of research work, in conjunction with the research department of the Metz Laboratories, with resulting introduction of his special anesthetic solution for spinal anesthesia. After carefully reviewing the work of Babcock and Pitkin, and after using both methods, I decided that Pitkin's method was the preferable to all others. My interest became such that I went to no little trouble and inconvenience to have my own appendix removed under spinal anesthesia. I wanted to see, feel and know just what a patient being operated upon under spinal anesthesia had to endure. After my operation I realized, again, the importance of spinal anesthesia.

During the past year we have been very careful about selection of type of anesthesia to be used in each case and, wherever there has been concern as to the use of nitrous oxide or ether, we have resorted to some form of local anesthesia for the following conditions: 2 cases of intestinal obstruction; 2 supravaginal hysterectomies; 1 panhysterectomy; 1 carcinoma of rectum, radon seeds implantation; for open reduction of femur, closed reduction of tibia and fibula, open reduction of patella, ovarian cyst, appendectomies, ruptured urethra. In nearly every case in which we have used spinal anesthesia there was some contraindication to any form of inhalation anesthesia, and in some cases operation under any form of inhalation anesthesia could not have been undertaken, whereas spinal anesthesia allowed us to secure a successful end-result when any other form of anesthesia would have meant disaster.

Spinal anesthesia, in its present stage of development. is quite a different proposition from what it was even 3 years ago. Most of you, I believe, still wonder why anyone uses spinal anesthesia. Those of you who feel that way do so from the past history of spinal anesthesia, and rightly so, but the present achievements of spinal anesthesia leave no doubt about its applicability in general surgery.

BERGEN COUNTY

Charles W. Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held on April 9 at Hackensack Hospital. In the absence of the President, Dr. Clarke, the Vice-President, opened the meeting at 9 p. m. The minutes were read and accepted and then Dr. King reported for the Welfare Committee. Several members were present at the Senate hearing on March 18, at Trenton, before the Senate Public Health Committee, on Bill S. 44.

Dr. Snedecor then reported for the Public Relations Committee. Favorable reactions to the Publicity Campaign have been coming in from different quarters. He suggested that the society continue the publicity work, that the committee be enlarged and that the same appropriation be continued.

Dr. Hallet moved that the work of the committee be commended, and that the appropriation be continued for the next year. This motion was carried.

Dr. James reported for the Membership Committee on the matter of transfer of Dr. Poole, of Edgewater. He said that so far as he knew the committee had voted to recommend to the society that his application be rejected, but that someone was trying to inject politics into the matter and that the candidate should get a personal hearing before the committee. A meeting of the committee was called, but only one member was able to be present, and in the absence of Dr. Goldberg, the Chairman, it was decided to lay the matter over for the next meeting.

The next order of business was the election of new members. Dr. George M. Knowles, having been passed by the Membership Committee, and his name having appeared on the regular monthly notices, was duly elected, the Secretary casting 1 ballot in his favor for the society.

Applications for membership were read from Drs. Arthur Scullion, Cliffside, and R. S. O'Connell, Teaneck.

Dr. Snedecor passed around the Certificate of Membership, to be given to each member, for approval. The total cost would be about $30 and would be borne by the society.

A letter was read from Miss Chetwood asking the society to endorse the "Early Diagnosis Campaign", which was done.

A letter was then read from Dr. Morrow, explaining the significance of "National Hospital Day", and as part of that program he invited the society to meet at Bergen Pines next month, and promised an appropriate "Hospital Day" program for that night. The invitation was accepted.

Dr. Pallen then reported for the Golf Committee, planning a tournament for some spring day, which would include a picnic, golf match, horse-shoe pitching contest, baseball game between the physicians and surgeons, or what have you. This report was enthusiastically received.

The scientific session was then opened and for the speaker of the evening we had Dr. Gordon K. Dickinson, of Jersey City.

The subject of his paper was "The Surgery

of Today". He touched briefly on the indications for operative intervention in general medical and surgical conditions; what the American College of Surgeons stands for; urged that the doctor take inventory once a year to prevent himself from getting into a rut; that attendance at medical conventions is of paramount importance. The paper was very well received and was discussed by Dr. Henry Spence, of Jersey City, by Drs. McCormack and Proctor, of Englewood, and Dr. Finke, of Hackensack.

The meeting was adjourned at 10:30 p. m.

CAMDEN COUNTY

R. E. Schall, M.D., Reporter

The regular monthly meeting of the Camden County Medical Society was called to order by President Day, at 9 p. m., April 9.

After reading the minutes of the previous meeting and concluding business of the evening, Dr. Edward Rose, Medical Director of the Thyroid Clinic, University of Pennsylvania Hospital, gave a very instructive and interesting talk on "The Medical Aspect of Hyperthyroidism".

The adolescent group, or patients, where the hyperthyroid condition appears when they are passing the age of puberty; majority of patients do not have any toxic symptoms. If they do have toxic symptoms, have a basic metabolism reading made. A little iodin will benefit a number of these patients. Dr. Rose advises gr. 1/6 potassium iodid after each meal, and gr. 1/4 to 1/3 of the dried gland t.i.d. for children. Then we have nodular goiters which are nontoxic. A great many people have nodular enlargement of the thyroid without toxic or pressure symptoms. The toxic symptoms may appear insidiously; after years the cardiovascular system becomes so impaired as to make them bad surgical risks. The best treatment for a nodular toxic goiter is surgical. Graves' Disease. These cases do not all have exophthalmia. First, the medical treatment calls for nerve sedatives and rest in bed; second, operative; third, radiation, radium and x-rays. X-rays are indicated in early cases and those that are beyond operative procedure. Lugol's solution 5 min. t.i.d. is better than large doses and patients should be given small doses of iodin after operation.

The paper was discussed by Drs. Lewis, Deibert, Lippincott, Cline, Shafer, Lee and Day.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

The banner meeting of the society was held at the Hotel Cumberland, Bridgeton, April 2. The President, Dr. M. F. Sewall, had planned a meeting to which the members of the societies of this judicial district were invited. A goodly number came from Cape May, Salem and Gloucester Counties. Many new friends were made and old friendships renewed.

Dr. Ephraim R. Mulford, President of the State Society, made some felicitous remarks about coming back home to one of the bright spots of his life's experience, he having been born at Cedarville, 8 miles to the south of Bridgeton. "The spirit of coöperation is permeating the medical profession. We must be on the jump. We can no longer sit down and tweedle our thumbs. The cults are organized and active. The periodic health examination program must be pushed by the county societies, and the local doctors made efficient to conduct them; instead of the Health Institutes outside their territory."

Dr. Leslie E. Myatt, local chairman of the antidiphtheria campaign, reported gratifying progress. The country districts have all met their quota.

Dr. Crowe, District Councillor, congratulated President Sewall on the success of the joint meeting and hoped it would be repeated annually by the other societies.

Dr. J. B. Morrison, State Society Secretary, told of the progress of bills in the Legislature.

Dr. Gabriel Tucker, Associate Professor of Bronchoscopy in the Graduate School of Medicine of the University of Pennsylvania, delivered a very interesting illustrated lecture, giving a résumé of the experience of the Chevalier Jackson Clinic in exploration of the lungs and esophagus of 2300 cases, with the removal of various foreign bodies by the bronchoscope. He emphasized the necessity of a radiogram in every case. Cancer may exist a year before manifestations appear; x-rays, the esophagoscope and test will determine the diagnosis in 90% of cases. Never make a diagnosis of globus hystericus or spasm until everything else is excluded. Blind methods are dangerous. Cardiospasm is really not a spasm. It is a failure to pass the bougie, due to closure of the esophagus by organic lesions—a dilated pouch—or compression by aneurism or tumor.

If the foreign body in the lungs is large enough to obstruct the air passage, the inspired effort will cause an indrawing of the supramanubrial notch. The obstruction may produce a peculiar whirring sound. Atelectasis may occur. If a history of a foreign body having been swallowed is given, a long space of intervening time does not contraindicate its presence. In 1 case, a soup-bone was found after a lapse of 7 years; no reaction had occurred. The shape of the body affects the time of reaction.

Abscess cavities may be caused by inspiration of blood during extraction of teeth and tonsils under general anesthesia. Web-stenosis may be present. Look at it first with scope and then use bismuth. Long standing cases may be kept going, and in some cases helped. Young children with bronchiectasis give the best results. Get them early and if they continue to cough always look for foreign body. Asthma is not infrequently caused by a foreign body. Tuberculosis does not present indications for bronchoscopy.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

The regular meeting of the Essex County Medical Society was held Thursday evening, April 11, to hear Dr. Merrill J. King, Director of the Hageman Research Laboratory at Mt. McGregor, N. Y., on "Undulant Fever", on which he had done such leading research work. This infection, and its relation to malta fever, with its prevalence in human beings and cattle, has rapidly come to the front as a most important discovery with possible far-reaching clinical application as well as research interest. Following this most interesting address the questions asked in discussion revealed interest

aroused. (We hope to procure Dr. King's address for publication in the Journal.)

The President of the State Society, Dr. E. R. Mulford, was also present as our guest and spoke of state society interests and the coming Annual Convention. He stressed the demand for, and value of, Periodic Health Examinations and pointed out that the public has reason to expect that the medical profession is qualified and ready to do the work. He also urged everyone to plan to attend the convention.

Academy of Medicine of Northern New Jersey Eye, Ear, Nose and Throat Section

E. LeRoy Wood, M.D., Reporter

The ophthalmologists and the neurologists discussed the value offered by ophthalmoscopic examinations of the retina in the diagnosis of intracranial lesions, at a meeting held April 8 at the Academy of Medicine, Newark. Dr. Michael Anthony Burns, Associate Professor of Neurology, Jefferson Medical College, Philadelphia, read a paper entitled "Ocular Disturbances in Organic Nervous Disease". (Dr. Burn's paper will appear in a subsequent issue of the Journal.) In the discussion, Dr. Linn Emerson stressed the necessity of extreme care in examination of the fundus of the eye. He suggested the use of the better and more descriptive name, angiopathic neuroretinitis for that condition so commonly referred to as albuminuric retinitis. He called attention to frequency of the statement that the urinalyses of these patients are negative without mention of the very significant specific gravity reading of 1.006 or 1.008. He felt it essential that the eye ground examination be made by the real expert to be of value and suggested frequent fundus examinations as marked changes in the picture may take place quite suddenly with only an interval of a few days.

Dr. D. F. O'Connor expressed gratification in the fact that ophthalmoscopy is so well appreciated by other specialists. He related that Von Graefe, in 1860, appreciated the value of ophthalmoscopic examinations. He referred to the triad of de Schweinitz as evidence of retinal sclerosis, consisting of flushing of the fundus, cork-screw vessels about the disc, and the artery obliterating the vein at a crossing of the vessels.

Drs. Haussling, Barkhorn, Wyatt and Donahue contributed to the discussion.

Dr. E. S. Sherman showed a patient who had a nodular, warty growth of the cornea, which neoplasm, as well as the cilia of the lids, was removed by radium. Another patient was shown who has had a piece of steel in the vitreous for 12 years and still has a quiet eye. No interference was recommended.

Dr. Linn Emerson told of a patient he had treated with a foreign body in a quiet eye for 10 years.

Dr. Hazeltine reported 2 cases of similar character showing that the foreign body or the eye does not necessarily have to be removed.

Dr. Lee W. Hughes, Chairman of the Section, and presiding officer, showed a patient who had an extensive wound of the eye, penetrating the sclera, and a prolapse of the vitreous. A conjunctival flap was made and the eye was saved. The patient has 20/100 vision and his field is contracted 10°.

The following officers were elected for the year: Dr. Frederick J. Wort, Chairman; and Dr. LeRoy Wood, Secretary.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter.

Dr. William Hughes, of Philadelphia, addressed the members of the Gloucester County Medical Society at their regular meeting held at the Woodbury Country Club, April 25.

He gave an interesting talk on his travels in the Balkans, with medical observations. The talk was illustrated with slides.

Dr. Morris Fishbein, of Chicago, will speak at the May meeting on "Fads and Quackery in Medicine".

Members of the Ladies' Auxiliary were present at the meeting.

Those present were: Drs. Ulmer, of Gibbstown; Sinexon, of Paulsboro; Fisler, of Clayton; Stewart and Buzby, of Swedesboro; Livingood, of Mullica Hill; Hollinshed and Hunter, of Westville; Burkett and Knight, of Pitman; Diverty, Underwood and Pegau, of Woodbury.

HUDSON COUNTY

M. I. Marshak, M.D., Reporter

The Hudson County Medical Society met at the Carteret Club, Jersey City, with Dr. W. J. Sweeney presiding, April 2, 1929.

Dr. Curtis reported that a sufficient number of members had applied for the "course on tuberculosis" to make it practicable to go ahead. Arrangements for the course will be made and it will be given some time during the month. He hoped that this would be the beginning of a series of postgraduate studies to be given from year to year.

Dr. Quigley spoke of the method used by Essex County for securing annual delegates to attend the state society meeting. He made a motion, which was seconded and passed, that a questionnaire be inserted in the next Bulletin, and that nominees be selected from the list of those expressing a willingness to attend and serve.

Dr. Allan K. Krause, Editor of the American Review of Tuberculosis, and Associate Professor of Medicine at Johns Hopkins University, spoke on "Clinical Tuberculosis and Its Symptomatic Manifestation".

The greatest advance in study of this disease has been designed for its detection. (1) Laennec's invention, the stethoscope, which introduced unity in the diagnosis of pulmonary tuberculosis; (2) Villemin's demonstration of the infectiousness of tuberculosis; (3) Koch's discovery of the tubercle bacillus; (4) Koch's development of tuberculin; (5) Von Pirquet's test. Flint first spoke of crepitant and subcrepitant râles and broncho-vesicular breathing, permanent and persistent in any part of the lung, especially at the apex, as being pathognomonic of tuberculosis.

Dr. Krause then spoke of the tuberculin period of diagnosis and how views again changed so that certain signs, even with a negative tuberculin test, were considered as meaning tuberculosis. Then, later, how the Von Pirquet test showed so many positives with marked signs in individuals who were perfectly well and who should not be subject to treatment. This fact brought up the question again as to "what is tuberculosis as a disease?"

"Practical diagnosis must have a positive test, physical signs and something else." He

illustrated this statement with cases found on examinations in the Army or on applicants for life insurance. If infection is present and becomes universal, and anatomic changes become universal, it will be a practically difficult task to make a positive diagnosis of clinical tuberculosis. Symptoms, therefore, become the criterian. The diagnosis of clinical tuberculosis should be based on infection, anatomic changes proved as due to this infection and accompanied by a deviation of function. If the symptoms are due to excessive stress and are normally not present, treatment is not required. Just as long as reparative or fibrotic changes keep ahead of the destructive ones so long is the individual able to work. Frequently in these cases only hemoptysis or severe and persistent pain will impress the patient. However, constitutional symptoms will bring the patient to the doctor more frequently.

These symptoms were supposed to be due to toxins thrown off by the tubercle bacilli but research has never been able to prove that theory. The best research work indicates that constitutional symptoms are set up by constituents of cells, a response to the tubercle bacilli when these cells break down, disintegrate, become fluid and are absorbed. He spoke of the symptoms in cancer and extensive burns and how they resemble the symptoms of tuberculosis. These symptoms we know are due to breaking down of cells, with splitting of proteins, developing poisonous substances which are absorbed.

Dr. Krause disapproved of the term *latent* tuberculosis. One either has or has not a clinical tuberculosis.

Drs. Dickinson, English, Runnels, Marrow, Baum, Jaffin, Curtis, Leopold, Marshak, Alexander, Sexsmith, Rosencranz, D'Acierno, Cosgrove and Krause took part in the discussion.

Clinical Conference of Bayonne Hospital

Maurice Shapiro, M.D., Reporter

The regular meeting of the Clinical Conference of the Bayonne Hospital was held Monday evening, March 4, at 9 p. m. In absence of the officials, Dr. Pinkerton presided; Dr. Shapiro acted as secretary. Minutes of the previous meeting were read and approved.

An account of deaths and infections for the previous month was brought up and technic discussed under the medical service of Dr. Larkey. Dr. Feinberg reported 2 interesting cases from the service of Dr. Larkey.

Dr. Larkey exhibited several plates taken of pneumonia patients showing progressive resolution, also x-ray plates from a tuberculous patient who on physical examination gave all the signs of having a cavity. X-ray examination, however, revealed no cavities, but both acute and chronic tuberculosis.

Dr. Higgins reported 2 cases similar in character, one a woman 67 years old and the other a girl 6 years old, showing a very interesting picture with tenderness and rigidity over McBurney's point. In 1 case the white cell count was 18,000, the other 21,000; polymorphonuclears 89%; temperature 101½ to 103°. A tentative diagnosis of appendicitis was made. As urine showed 15-20 pus cells per field, the diagnosis was changed to pyelitis. On exhibition of urotropin, with forced fluids, and ice bag to abdomen, both cases cleared up.

Dr. Lipshutz described the case of a boy 10 years of age, which began 5 days ago with pain radiating from the umbilicus, with no tenderness or rigidity in the right lower quadrant, temperature 103°, throat red, white blood count 12,000, polymorphonuclears 57%. In consultation with Dr. Pinkerton it was decided to give high colonic irrigations. Temperature went down, but there is still slight pain in McBurney's region. Dr. Pinkerton believes that it is not appendicitis but in all probability a typhlitis.

Dr. Lipshutz reported a child 2½ years old who had been treated for 5 days by another physician for influenza. When Dr. Lipshutz saw the case there was marked rigidity of neck. Lumbar tap showed fluid under pressure with meningococci on examination. Gave 15 c.c. of meningococcus serum, with immediate response; this was followed by 2 injections daily for the first 3 days and then 1 daily for a week. Child was tapped today; spinal fluid negative; no rigidity; and is walking around.

Dr. Williamson reported a case he came across while examining for life insurance, a man to all appearances in perfect health. Urine showed specific gravity 1.000, clear white, negative for sugar and albumin. Specimen taken every day for a week with varying specific gravity, 1.000-1.010. This patient does not drink water excessively. It was suggested that there might be a diabetes insipidus, and case should be watched.

Dr. Harvey cited a similar case in which the patient had for years passed 1 gallon of water daily, specific gravity 1.004-1.006 and appeared to be in perfect health.

Dr. Chayes inquired if any one had used the pituitary product, "Pitrosin" in diabetes insipidus.

Dr. Pinkerton reported on 3 cases. The first was presented by Dr. Higgins at the previous meeting as a subphrenic abscess. The patient has a septic temperature, and he believes that there is another pocket of pus. Patient, however, is a poor operative risk at present.

Second case, a boy 12 years old, who had an extensive third degree burn of the leg. Skin grafting was done, but upon an attempt to straighten out the leg the granulation tissue in the popliteal region gave way suddenly, exposing the vessels in the popliteal space; showing the danger of forced extension in cases of this sort. It was fortunate that none of the vessels gave way.

Third case, a woman 60 years of age, with myocarditis for some time; digitalis prescribed and patient improved. One day he was hurriedly called because of excessive vomiting. Stopped the digitalis and gave milk of magnesia. Patient went to stool and suddenly felt a sharp pain in left iliac region. When the doctor saw her, there was a mass in the left iliac region, tympanitis and obstruction. The mass seemed to grow larger while he was looking at it. Operation: Large hematoma due to rupture of the omental vessels. The omentum and intestines were all matted together and showed a "general carcinomatosis". Clamped, bleeding stopped, and drained. Patient is getting better now, about 2 weeks postoperative. The question which puzzles Dr. Pinkerton is whether it is a real carcinoma or a torsion of the omentum.

Dr. Frank reported on a child 5 years of age who for 2 weeks previous to admission to the hospital complained of pain in the right loin; had slight rigidity of hip and spine. Was sent

to the hospital for diagnosis. Gastro-intestinal and spinal x-ray examinations negative. Spinal tap, suggested by Dr. Woodruff, followed and was reported negative. The rigidity became more marked. Dr. Frank applied a plaster jacket 1 month ago. Patient reported in the office today, rigidity has disappeared; there is no pain. X-ray examination suggests psoas abscess, as the muscle is larger on the right side.

Meeting adjourned at 11:30 p. m. Those present were: Drs. Pinkerton, Finger, Marshak, Frank, Brady, Chayes, Williamson, Harvey, Solomon, Larkey, Morganstein, Fifer, Murray, Feinberg, Madaras, Ferenczi, Shapiro; interns and Mr. Mass.

Conference of Jersey City Hospital Staff

Joseph Binder, M.D., Reporter

The regular monthly meeting of the Jersey City Hospital Staff was held Thursday evening, April 11, with Dr. E. Daly presiding. Among those present were: Drs. O'Hanlon, Binder, Burke, Perlberg, Benjamin, Cosgrove, Faison, Fellman, Sprague, Kelley, Perkel, Rundlett, Rector, Sullivan, Winter, Commorato, Brownstein, St. George, Brophy, Fineberg, Street, Schneckendorf, Segler and White.

Dr. Brophy exhibited 2 cases of strabismus treated medically and with the aid of glasses. He also presented a case of birth trauma where a forceps injury had resulted in paralysis of the right superior rectus muscle; 2 patients who had suffered penetrating wounds of the eyeball; and 1 patient who had recovered and continues to do well following removal of a glioma of the orbit.

Dr. Perkel gave a short talk on "Differential Diagnosis of Esophageal Obstruction". He considered the causes as either extrinsic or intrinsic. Of the former, the most common causes are aneurysm and mediastinal inflammations or tumors; less frequently pericardial or pleural effusions, lesions of the spine, thyroid tumors and enlarged tuberculous glands. The most common intrinsic causes of obstruction are carcinoma, cardiospasm and stricture; occasionally foreign bodies, polyps and reflex spasm from lesions in the esophagus. Carcinoma is probably the most common disease of the esophagus, some observers stating that it represents 90% of all the lesions in that portion of the alimentary canal; clinically, it is characterized by vague substernal pain, dysphagia, anemia and loss of weight and strength. In nearly every case pain is the earliest symptom, but diagnosis has to be corroborated by esophagoscopy, passage of bougies and roentgenography.

Dr. Perkel related several case histories to illustrate points of diagnosis in esophageal obstructions.

Dr. Meredith reported the case history and autopsy results of a patient who died from a retroperitoneal abscess with purulent hepatitis and ascites.

Dr. Daly exhibited a patient under treatment for adenocarcinoma of the kidneys.

Dr. Brownstein stated that there had been 84 deaths in the hospital during the month of March with only 8% autopsies.

Dr. Commarato reported 3 cases of plumbism, exhibiting the 3 different types of lead poisoning.

At 10:45 p. m. the meeting adjourned to the dining room where a delightful collation was enjoyed.

Clinical Society North Hudson Hospital

J. Africano, M.D., Reporter

The regular monthly meeting of the Clinical Society was held Tuesday, April 9, Dr. Tannert presiding. Hospital report for March was read by Dr. Tannert: total discharges, 301; deaths, 31, of which 15 were medical, 13 surgical, 3 pediatric; 2 of the deaths were discussed by the Staff.

Case No. 15143: Dr. Selinger stated that this patient was admitted to his service, with profuse bleeding from both nostrils, but no local cause could be found; vomited at least several basin-fulls of blood; shortly after admission passed into coma and died 36 hours later in spite of heat, fluids, transfusion, saline by hypodermoclysis, thromboplastin, and calcium lactate. The urine was negative except for trace of albumin, a few casts and red cells; the first blood count showed 78% Hb. and 3,600,000 reds; second count 65% Hb. and 2,200,000 reds; coagulation time 4½ min.; icterus index 20; blood platelets 120,000. History showed that the patient was a chronic alcoholic, a "boot-legger" by occupation; always had a high blood pressure; previously suffered from jaundice, and no doubt had cirrhosis of the liver. Dr. Klaus, who saw the case in consultation, agreed with the diagnosis of hepatic cirrhosis; he ascribed death to cholemia and uremia, and not to hemorrhage; Dr. Pearlstein suggested hypertrophic cirrhosis as the liver was greatly enlarged, and these cases are apt to die with uremic manifestations.

Case No. 15129, related by Dr. Eckert, that of a woman aged 83 who fell down the stairs. On admission the muscles of the neck were so rigid that she could not move her head, and no radiograph could be taken; diagnosis of cervical fracture or dislocation made; she also had a chronic myocarditis and emphysema; finally died of a hypostatic pneumonia. At no time were there any neurologic symptoms or signs. Diagnosis of dislocation of the second and third cervical vertebrae was confirmed at autopsy by Dr. Braunstein.

The following clinical reports were presented:

Acute suppurative pyelonephritis, with rupture of ureter, Dr. Hekimian.

Carcinoma of lung with metastasis to abdomen, Dr. Pearlstein.

Parenchymatous and interstitial nephritis, possibly due to focal infection, Dr. Braunstein.

Acute articular rheumatism, Dr. Broder.

Open reduction of olecranon fracture, Dr. Sweeney.

Skeletal traction on fractured femur, Dr. Eckert.

HUNTERDON COUNTY

L. T. Salmon, M.D., Reporter

The meeting of this society was opened by the President, Dr. Theodore B. Fulper, who, after a series of operations upon an infected hand and arm, has returned to his usual pursuits. He extended thanks for considerations shown him during his hospital experiences.

Under regular business it developed that the

treasurer has sufficient accumulated funds to provide dinners for all members attending meetings for some time to come and a motion looking to that result was unanimously passed. During the course of the session Dr. S. B. English discussed "artificial pneumothorax" as a valuable asset in many cases of pulmonary tuberculosis and stressed its beneficial effects in hemorrhagic cases.

Dr. Topkins gave one of his interesting talks upon "urinalysis and the association of sugar with low blood pressure". This brought considerable discussion as to the possible relation of the two signs, and many cases were detailed by various members.

The society requested Dr. English to approach the Managers of the Glen Gardner Sanitarium asking that permission be granted to place a tablet in the institution to the memory of Dr. O. H. Sproul, one-time President of the State Medical Society.

The usual free discussions made this meeting a very informal and helpful session, many members taking active part in discussions of obstetric and medical subjects brought out by case reports.

A dinner at the Union Hotel closed the day.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Society met in the Mansion House, Cadwalader Park, April 10, President Seely presiding.

The subject for the evening was a "Symposium on Obstetrics", with several of our local men speaking on the different branches of that subject, and with the aid of very interesting lantern slides.

Dr. Henry M. Rowan gave a comprehensive résumé on "Rectal Anesthesia". He outlined the early experimental work done by Dr. James Gwathmey, with the coöperation of Dr. Asa B. Davis, Chief Obstetrician of the N. Y. Lying-in Hospital, and the later development of the present accepted formula in the administration of this form of anesthesia.

The technic of administration was most interestingly detailed, and he then gave some of the contraindications, advantages and disadvantages, to be observed in the use of this particular form of anesthesia, stating that in the near future spinal anesthesia will be more universally employed in obstetrics.

Dr. John B. Comfort took up the subject of "Normal Obstetrics", speaking of the condition as a surgical procedure, and, therefore, requiring all the care possible. The patient's general health, demeanor, morale and mental attitude should be carefully studied with view to a successful termination of her parturition.

Dr. E. F. Purcell read a synopsis of the "History of Version" as introductory to his subject of "Podalic Version", giving a very interesting account of the development of methods of delivery from the time of Hippocrates.

The compilation of this history gave ample evidence that Dr. Purcell had most thoroughly studied his subject and that he is well qualified to not only pass judgment on the record of pioneer obstetrics, but that by his own personal experience in this particular method of delivery, he has gained sufficient knowledge to warrant an expression of confidence in its advantages. Dr. Purcell demonstrated with actual moving pictures, meanwhile explaining the several steps in 3 deliveries by podalic version. A cesarean section was also shown on the screen.

Dr. A. W. Atkinson discussed the methods of version and use of forceps, pointing out the several advantages of one over the other dependent upon indications and contraindications, the opinion being expressed that version was more and more coming into general use by the profession, and with the perfection of anesthesia, the tortures of parturition were rapidly being dispelled. Dr. Atkinson displayed a pair of forceps, designed with a long curvature above the handles, for use in delivery of the after-coming head, the concavity of the curve fitting over the body of the infant.

Dr. E. L. West described in detail the indications for cesarean section, reciting the records of several cases coming under his observation. The *absolute* and *relative* signs were most thoroughly described:

Absolute: (1) True conjugate, 6 cm. or less; (2) tumor impacted in pelvis (cyst or fibroid); (3) rupture of uterus; (4) atresia of outlet from scar.

Relative: (1) Contracted or deformed pelvis; (2) placenta previa (separation); (3) eclampsia; (4) tumors, cyst and fibroid; (5) prolapse of cord; (6) over-size of fetus (compressibility of head); (7) uncontrollable position (impacted shoulder); (8) ventral fixation; (9) fetal deformity; (10) impacted twins.

Dr. West enumerated the several methods, referring to the advantages or disadvantages as the case might require, giving a more or less detailed account of the technic in each method, stating that he never regretted a cesarean section, but that he had regretted not performing this operation. He referred to several cases in which this operation had been done following the use of forceps, with recovery.

Dr. W. J. Harman discussed the general subject of obstetrics, paying particular attention to the employment of version, this being his method of choice as compared with the use of forceps.

General discussion followed, after which luncheon was served.

The application of Dr. Hermann L. Witte was read and referred to the Membership Committee.

The meeting in June will be held in Princeton.

MIDDLESEX COUNTY

Medical Section Rutgers Club

John H. Rowland, M.D., Reporter

The last regular meeting of the Medical Section of the Rutgers Club was held on Thursday evening, April 18, at the home of Dr. F. C. Johnson. The committee in charge of entertainment consisted of Drs. Johnson, Klein, Haywood and Haight.

The speaker of the evening was Dr. Mortimer Hyams, of the Post-Graduate Hospital, New York City. Subject: "Conization of the Cervix Uteri by the Hyams Technic; Illustrated by Lantern Slides".

MONMOUTH COUNTY

March Meeting

Daniel Traverso, M.D., Reporter

The March meeting of the Monmouth County Medical Society was held at the Berkeley-Carteret Hotel, Wednesday, March 27, with President J. F. Ackerman in the chair.

The paper of the evening was read by Dr. B. W. Moffat, of Red Bank, on "Treatment of Fractured Spine", illustrated with x-ray plates and clinical cases.

The discussion was opened by Dr. D. F. Featherston, followed by Drs. Herrman, Garrison and Prout.

The meeting was well attended, about thirty-five members being present.

April Meeting

The monthly meeting of the Monmouth Medical Society was held at the Molly Pitcher Grill, Red Bank, N. J., April 24. Dr. James F. Ackerman presiding over an attendance of about 40 members.

The speaker of the evening was Mr. Raleigh S. Rife, Chief Economist of the Guarantee Trust Company, New York City, who spoke on "Financing the Doctor", and "Recent Developments Affecting Foreign Credit".

PASSAIC COUNTY

Frank W. Ash, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held at the Health Centre, Paterson, N. J., at 9 p. m., on the evening of April 11, with 65 members and several guests present.

The minutes of the March meeting were approved as read. The application for membership of Dr. Morris Joelson was brought forward for action but it was decided to defer action until more members had arrived.

Miss Van Sann, of the Paterson City Laboratory, reported on 2 cases of malta fever. Discussion by Drs. McCoy and Lee followed. It was regularly moved and seconded that Miss Van Sann's paper be published in the Journal.

Dr. Lee suggested having all bloods negative for typhoid sent to the city laboratory and tested for agglutination for Bacteria melitensis. The city laboratory stands ready for this service.

Dr. Joelson's application was again brought up and it was regularly moved and seconded that the application be referred back to the Board of Censors; which motion was adopted.

The scientific program followed:

(1) Dr. N. P. Lobsenz—Common Complications of Otolaryngology: (a) Brain Abscess. (b) Lateral Sinus Thrombosis.

(2) Dr. Carl Eggers (Attending Surgeon, Lenox Hill Hospital, New York City)—Acute Empyema.

Discussion by Drs. T. A. Dingman, L. E. DeYoe, G. B. Kim and H. Wassing.

Dr. Eggers was given a vote of thanks by the society for his address.

SALEM COUNTY

William H. James, M.D., Reporter

The Salem County Medical Society met at Johnson Hotel on the afternoon of April 10, at 2 o'clock.

The regular business of the meeting was taken up in the usual way, after which the society had the pleasure of hearing Dr. Mulford, of Burlington, President of the New Jersey State Medical Society, speak on several subjects, among which were the woman's auxiliary, preventive treatment of diphtheria, and legislative progress.

The essayist for the meeting was Dr. L. H. Hummel, of Salem, who spoke upon "Gangrene". Dr. Hummel described in detail the different forms of the disease, namely: dry, moist and gas gangrene. The causes and treatment of each form were given in detail. At the conclusion of his paper, the discussion was taken up by most of the members present.

The delegates from Cumberland County were: Drs. John Moore and Myatt, of Bridgeton; from Burlington County, Drs. Mulford and Tracy.

The next meeting will be the social session, to be held sometime during May at the Salem County Country Club.

SOMERSET COUNTY

Lancelot Ely, M.D., Reporter

The Somerset County Medical Society met in regular session on April 11 at the Nurses' Home, Somerset Hospital, Somerville. The usual routine business was transacted.

The guest speaker was Dr. Reginald Burbank, of New York, who gave a very pleasing and instructive talk on "Arthritis and Its Relation to Streptococcus Infection". Dr. Burbank went into detail in description of arthritic lesions produced experimentally by streptococci: the types that he has isolated have been the fecalis, in the green streptococci, and infrequent in the hemolytic; only scattered findings of mitis, salivarius, equinus and subacidus. He laid particular emphasis on the habit of streptococci to set up implants in parts of the body other than the local focus. All mucous membranes may be sources of infection, but the intestinal tract gives the greatest field for implants and one of the hardest to control. He considers the diseased gall-bladder and appendix as secondary to intestinal infection. The genital tract, including the prostate and bladder, are not to be overlooked, and even skin abrasions have been known to be the source of focal infection. Under treatment, he considered that the general upkeep of the body was very essential; diet not too restricted, sugars limited, but not a great restriction on meats; and iron in any form very necessary. All condiments or any food that would act as an irritant of the intestinal tract should be eliminated from the diet. He advised avoiding all drastic purgation and high colonic irrigations, recommending small bicarbonate irrigations in some cases. The salicylates and iodides, in moderate doses, control pain in some individuals but best results come from routine autogenous vaccine treatments, starting with small dosage and continuing over a long period of time. In his experience, the large majority of cases are helped, but he has found a few that did not respond to any treatment.

The society regrets that a larger number of its members were not present to hear Dr. Burbank's instructive talk, but those present were well pleased with his lucid way of presenting the subject.

Resolutions adopted by Somerset County Medical Society:

It was with profound sorrow we learned of the death of our co-worker, Dr. David F. Weeks, on March 15, 1929.

Since Dr. Weeks residence in this county he has been always identified with the work of our

society. It is with pleasure we recall his hospitality, and we appreciate greatly the work he has done in our society, having had the distinction of serving two consecutive terms as President.

We would also express our appreciation of him as a brother physician, and the advice we so often received from him, his genial manner and sterling qualities will long be remembered by us. We express our sorrow in the loss to his family, to the community, to our society, and we feel that an earnest worker has been removed from his special field.

Resolved that a copy of this be spread upon the minutes of our society, also sent to the family, a copy sent to the Journal of the Medical Society of New Jersey, and that this be published in the local papers.

(Signed) A. L. Stillwell, M.D.
W. H. Long, M.D.
E. G. Brittain, M.D.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

Following a cold, rainy day, a surprisingly large number attended the quarterly meeting of the society at Muhlenberg Hospital, Plainfield, on the evening of April 10. Dr. Alfred F. Van Horn presided.

Two proposals for membership were received for action at the next meeting, and the following physicians were elected: W. J. McGinn, Scotch Plains; A. McC. Brown, Plainfield; P. A. Proudfoot, Roselle; and M. C. Messina, Summit. L. D. Henn was granted a transfer to Somerset County.

This memorial resolution was unanimously adopted: "The Union County Medical Society in regular meeting assembled records the death of a member of our society, Dr. Maxmillian Imre, whom the Almighty in His infinite wisdom has seen fit to remove from our midst. This society extends its heartfelt sympathy to the bereaved family." J. Gerandasy, Howard Goldfield and Louis H. Chaiken, committee.

The Welfare Committee has sent a letter to all school physicians and welfare societies of the county announcing the establishment of a psychologic clinic for children at the Elizabeth General Hospital, under the direction of Dr. M. Vinciguerra.

Annual Delegates to the state medical society were elected: Drs. S. F. Wade, T. F. Higgins, R. B. Blythe, C. A. Brokaw, R. N. Nittoli, W. B. Morris, H. D. Corbusier, P. B. Cregar, Emil Stein, N. W. Currie and H. V. Hubbard. Alternates—M. Ripps, F. A. Williams, J. Blumberg and T. M. Morris.

The speaker of the evening was Dr. Charles McKendree, Attending Physician to the Neurologic Institute, and Consulting Neurologist to Roosevelt Hospital, New York. "Neuritis," he said, "was a term which had been used very loosely." He developed and elaborated his theme by discussing pains of central, peripheral and psychogenic origin. After his discourse, he answered many questions pertaining to his subject and was tendered a vote of thanks.

Muhlenberg maintained its long established reputation for gracious hospitality by serving a delightful collation in its new and beautifully decorated dining room, where the presence of the woman's auxiliary added to the pleasure of the occasion.

Summit Medical Society

W. J. Lamson, M.D., Reporter

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines on Tuesday, March 26, at 8:30 p. m., with the President, Dr. Krauss, in the chair, and Dr. Smalley entertaining. Present: Drs. Bensley, Burritt, Campbell, Disbrow, Eason, Hallock, Johnston, Krauss, Lamson, Larrabee, Lawrence, Macpherson, Meeker, Meigh, Milligan, Morris, Prout, Smalley, Tidaback and Wolfe, and the following guests: Drs. Earp, Messina and Thompson, of Summit, Dr. Allis, of Basking Ridge, and Dr. Smith, of Short Hills.

The paper was read by Dr. Marcus A. Curry, Superintendent of the N. J. State Hospital for the Insane, at Morris Plains, on the "Treatment of the Insane". Dr. Curry reviewed the history of the subject from the earliest times, when the insane were supposed to be possessed of evil spirits. In 1410 the first institution for the insane was opened in Valencia, but it was custodial in nature, to protect society rather than to treat the insane. Loaded with chains, they were kept in dungeons in filth and misery. During the French Revolution, Dr. Pennell struck off their chains and put them in hospitals for treatment. In 1844, New Jersey appointed a Commission for State Control and Treatment of the Insane, but for many years it was an object of political mismanagement. Only in the last 25 years has a real effort been made to handle the matter adequately. At present the prevention of insanity is assuming great importance by means of psychiatric clinics, etc.

In our large institutions we find the most modern medical and surgical equipment, with nursing schools, a social service staff, occupational therapy and physical culture. The results are becoming much better, so that 50% are discharged arrested, improved or cured. But, as the mortality is low—6%,—it leaves a large permanent population to be cared for, with inevitable overcrowding.

The interesting paper was discussed by Drs. Prout, Thompson, Lawrence, Eason, Milligan, Johnston and Krauss.

WARREN COUNTY

F. A. Shimer, M.D., Reporter

The regular meeting of the Warren County Medical Society was held at Washington, N. J., April 17, at 1 p. m., under the presidency of Dr. Leon W. Hackett.

The report of the Welfare Committee was approved and the recommended changes in the by-laws unanimously adopted.

Dr. John Howell West, of Easton, Penna., read a paper entitled, "Practical Observations on Infant Feeding", which was discussed by Dr. Lawrence H. Bloom.

Dr. F. E. McKinstry presented a paper on, "The Heart Muscle", discussion of which was opened by Dr. F. C. Roberts.

Both papers have been submitted to the Journal for later publication.

The members present were: Hackett, Osmun, Smith, Shimer, Zuck, Curtis, Bossard, Tunnison, La Riew and L. H. Bloom.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, EPHRAIM R. MULFORD.....Burlington
First Vice-President, ANDREW F. MCBRIDE.....Paterson
Second Vice-President, GEORGE N. J. SOMMER.....Trenton
Third Vice-President, JOHN F. HAGERTY.....Newark
Corresponding Sec., WILLIAM J. CARRINGTON....Atlantic City
Recording Secretary, J. BENNETT MORRISON.....Newark
Treasurer, ELIAS J. MARSH.....Paterson

TRUSTEES

NORTON L. WILSON, *Chairman*.....Elizabeth
JAMES HUNTER, JR., *Secretary*.....Westville
ALEXANDER MARCY, JR.....Riverton
THOMAS J. SMITH.....Bridgeton
EDWARD J. ILL.....Newark
PHILIP MARVEL.....Atlantic City
WILLIAM G. SCHAUFFLER.....Princeton
THOMAS W. HARVEY.....Orange
GORDON K. DICKINSON.....Jersey City
HENRY B. COSTILL.....Trenton
WELLS P. EAGLETON.....Newark
ARCHIBALD MERCER.....Newark
LUCIUS F. DONOHOE.....Bayonne
JAMES S. GREEN.....Elizabeth
WALT P. CONAWAY.....Atlantic City
EPHRAIM R. MULFORD.....Burlington
ANDREW F. MCBRIDE.....Paterson
GEORGE N. J. SOMMER.....Trenton
JOHN F. HAGERTY.....Newark
ELIAS J. MARSH.....Paterson
WILLIAM J. CARRINGTON.....Atlantic City
J. BENNETT MORRISON.....Newark

First District	Term expires, 1932	GEORGE H. LATHROPE, Newark
Second District	" " 1931	B. S. POLLAK, Secaucus
Third District	" " 1930	MARTIN W. REDDAN, Trenton
Fourth District	" " 1929	PAUL M. MECRAY, Camden
Fifth District	" " 1933	J. HARRIS UNDERWOOD, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....CHRISTOPHER C. BELING, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....FRANCIS H. TODD, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. SCAMMELL, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....MARCUS W. NEWCOMB, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....ALDRICH C. CROWE, Ocean City

Committee on Scientific Work

W. E. DARNALL, Chairman.....Term expires 1929
R. K. HOLLINSHED..... " " 1930
LANCELOT ELY..... " " 1931

Committee on Public Hygiene and Sanitation

G. K. DICKINSON, *Chm.*, Jersey City.....Term expires 1929
J. FINLEY BELL, Englewood..... " " 1929
THOMAS B. LEE, Camden..... " " 1930
HENRY SPENCE, Jersey City..... " " 1930
H. GARRETT MILLER, Millville..... " " 1931
HARVEY S. BROWN, Freehold..... " " 1931

Committee on Credentials

WILLIAM J. CARRINGTON, *Chm.*.....Atlantic City
ELIAS J. MARSH.....Paterson
PHILIP MARVEL, JR.....Atlantic City

Delegates to the American Medical Association

JOHN F. HAGERTY.....Term expires 1929
B. S. POLLAK..... " " 1929
W. BLAIR STEWART..... " " 1930

Alternate Delegates

GEORGE H. SEXSMITH.....Term expires 1929
PHILIP MARVEL..... " " 1930
S. B. ENGLISH..... " " 1930

Committee on Publication

CHAS. D. BENNETT, *Chm.*, Newark.....Term expires 1930
EDWARD J. ILL, Newark..... " " 1929
J. BENNETT MORRISON, Newark..... Ex-officio
EPHRAIM R. MULFORD, Burlington..... Ex-officio

Committee on Finance and Budget

HARRY R. NORTH, *Chm.*.....Term expires 1933
PAUL M. MECRAY..... " " 1934
JOHN NEVIN..... " " 1929
B. S. POLLAK..... " " 1930
H. GARRETT MILLER..... " " 1931
THOMAS W. HARVEY..... " " 1932
ELIAS J. MARSH, *Treasurer*..... Ex-officio

Committee on Program and Arrangements

MARTIN W. REDDAN, *Chm.*, Trenton.....Term expires 1931
WILLIAM G. SCHAUFFLER, Princeton..... " " 1929
WILLIAM D. OLMSTEAD, Atlantic City..... " " 1930
EPHRAIM R. MULFORD, Burlington..... Ex-officio
J. BENNETT MORRISON, Newark..... Ex-officio

Committee on Honorary Membership

THOMAS W. HARVEY, *Chm.*.....Orange
GEORGE H. SEXSMITH.....Bayonne
WILLIAM G. SCHAUFFLER.....Princeton

Committee on Standardization of Hospitals

JOHN C. MCCOY, *Chm.*.....Paterson
HOWARD S. FOLMAN.....Jersey City
DAVID A. KRAKER.....Newark
GEORGE N. J. SOMMER.....Trenton
THOMAS B. LEE.....Camden
WILLIAM W. BROOKE.....Bayonne
HAROLD D. CORBUSIER.....Plainfield

Committee on Business

EMANUEL D. NEWMAN, *Chm.*.....Newark
JOHN NEVIN.....Jersey City
W. BLAIR STEWART.....Atlantic City
SAMUEL B. ENGLISH.....Glen Gardner
EMLEN P. DARLINGTON.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

PAUL M. MECRAY, *Chm.*.....Camden
ALFRED STAHL.....Newark
HUGO ALEXANDER.....Hoboken
HARRY L. ROGERS.....Riverton
HORACE D. BELLIS.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

FRANK W. PINNEO, *Chm.*.....Newark
J. FINLEY BELL.....Englewood
AUSTIN H. COLEMAN.....Clinton
FRED J. QUIGLEY.....Union City
JAMES S. GREEN.....Elizabeth
RALPH K. HOLLINSHED.....Westville
CLARENCE W. WAY.....Sea Isle City

Committee on Welfare

HENRY C. BARKHORN.....Newark
LAWRENCE H. BLOOM.....Phillipsburg
J. C. CLAYTON.....Freehold
A. H. COLEMAN.....Clinton
JOSEPH G. COLEMAN.....Hamburg
WALT P. CONAWAY.....Atlantic City
SAMUEL A. COSGROVE.....Jersey City
HENRY B. COSTILL.....Trenton
RICHARD M. A. DAVIS.....Salem
HAROLD B. DISBROW.....Lakewood
LUCIUS F. DONOHOE.....Bayonne
LANCELOT ELY.....Somerville
LINN EMERSON.....Orange
JAMES S. GREEN.....Elizabeth
EDWARD GUION.....Northfield
JOHN F. HAGERTY.....Newark
D. LEO HAGGERTY.....Trenton
JAMES HUNTER, JR.....Westville
CHARLES J. LARKEY.....Bayonne
GEORGE H. LATHROPE.....Morristown
A. HAINES LIPPINCOTT.....Camden
JOSEPH F. LONDRIGAN.....Hoboken
ANDREW F. MCBRIDE.....Paterson
B. C. MCMAHON.....Morristown
J. BENNETT MORRISON.....Newark
JOSEPH R. MORROW.....Oradell
EPHRAIM R. MULFORD.....Burlington
WILLIAM E. RAMSEY.....Perth Amboy
DANIEL F. REMER.....Mt. Holly
JOHN N. RYAN.....Passaic
WILLIAM G. SCHAUFFLER.....Princeton
JAMES P. SCHUREMAN.....New Brunswick
MILLARD F. SEWALL.....Bridgeton
ELBERT S. SHERMAN.....Newark
GEORGE T. TRACY.....Beverly
CLARENCE W. WAY.....Sea Isle City

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.

THE NEW YORK POLYCLINIC
MEDICAL SCHOOL AND HOSPITAL
(ORGANIZED 1881)

(The Pioneer Post-Graduate Medical Institution in America)

We Announce
FOR THE GENERAL PRACTITIONER
A combined course comprising

INTERNAL MEDICINE
PEDIATRICS
GASTRO-ENTEROLOGY
DERMATOLOGY
NEUROLOGY
OBSTETRICS
PHYSICAL THERAPY
PATHOLOGY AND BACTERIOLOGY
SURGERY
NEURO-SURGERY
UROLOGY
PROCTOLOGY
GYNECOLOGY (Surgical-Medical)
ORTHOPEDIC SURGERY
TRAUMATIC SURGERY
THORACIC SURGERY
OPHTHALMOLOGY
OTOLOGY
RHINOLARYNGOLOGY

FOR INFORMATION ADDRESS
EXECUTIVE OFFICER, 345 W. 50th St., NEW YORK CITY

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103. Act of Oct. 3, 1917, authorized July 29, 1918

Vol. XXVI., No. 6. Orange, N. J., June, 1929 Subscription, $3.00 Per Year Single Copies, 30 Cents

OF MEDICINE
JUN 1 1929
LIBRARY

CONTENTS

ORIGINAL ARTICLES— Page

Observations on the Clinical Diagnosis of Peptic Ulcer—Dr. George H. Lathrope.. 441

Fatal Bacteremia Due to Escherichia Pseudodysenteriae (Kruse)—Dr. Robert A. Kilduffe 446

Intestinal Obstruction: Present Day Considerations and Rationale of Treatment—Dr. Edward G. Waters 448

Preoperative and Postoperative Treatment of Diabetic Patients; Report of 56 Cases—Drs. Aaron E. Parsonnet, Abraham L. Reich and Joseph Skwirsky 452

ORIGINAL ARTICLES— Page

The Medico in Business—Edward E. Rhodes 455

The Barraquer Cataract Operation; Moving Picture Demonstration — Dr. William McLean 462

Nasal Surgery in Hay Fever—Dr. Louis Weiss 466

Aberrant Pancreas in the Stomach Wall—Dr. William Wheeler Cox 467

Report of Interesting Surgical Cases—Dr. Albert S. Harden 470

Annual Report of Treasurer..... 474

Continued on page VI.

When Summer Comes

ENTERITIS and other intestinal disturbances during the summer months call for an efficient intestinal antiseptic.

EACH tablet Calcreose 4 grains contains 2 grains pure creosote combined with calcium hydroxide ... a form of creosote that patients will tolerate.

Liberal sample to physicians for "summer ailments" test.

The Maltbie Chemical Co.
Newark, New Jersey

MALTBIE
Calcreose

CONSTIPATION

"The substitution of one of the maltose-dextrins mixtures for milk or cane sugar also sometimes relieves constipation in little babies.*** Those preparations which contain the potassium salts are apparently somewhat more laxative than those containing the sodium salts."

MEAD'S DEXTRI-MALTOSE

From Text Books of over a decade

MEAD'S DEXTRI-MALTOSE No. 3 (with potassium bicarbonate) is indicated for constipated babies. Potassium salts added to cow's milk cause the formation of a soft coagula and softer stools.

In human milk there is a preponderance of potassium over calcium salts, while calcium salts predominate in cow's milk. The calcium in cow's milk tends to cause the formation of large tough curds in which are enveloped large quantities of fat.

Sufficient potassium salts tend to overcome the preponderance of calcium resulting in a soft flocculent curd. By freeing the fat from its envelope of casein, it comes in more intimate contact with the digestive juices resulting in a better metabolism and softer stools.

THE MEAD POLICY

MEAD'S INFANT DIET MATERIALS *are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.*

MEAD JOHNSON & COMPANY

EVANSVILLE, INDIANA

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 6 ORANGE, N. J., JUNE, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

OBSERVATIONS ON THE CLINICAL DIAGNOSIS OF PEPTIC ULCER

George H. Lathrope, M.D.,
Newark, N. J.

Member of Medical Board Morristown Memorial Hospital; Consulting Physician to All Souls Hospital, Morristown; the Dover General Hospital; and the New York Stock Exchange.

This study was undertaken in an endeavor to evaluate 2 symptoms—periodic pain and acid dyspepsia—in reference to their diagnostic significance in ulcer of the stomach and the duodenum.

The physician in general practice and the insurance examiner, whether in the field or at the home office, must often make a tentative diagnosis of ulcer without benefit of roentgenography; and it is with such a situation in mind, where history and physical examination are the sole guides to conclusions reached, that this paper is offered.

The process of diagnosis of acute disease is usually different from that pursued in the estimation of chronic ailments. Acute illnesses are ordinarily susceptible of both etiologic and anatomic diagnoses. They are apt to be marked typically, like the eruptions of scarlet fever and measles, the rusty sputum of pneumonia, the enlarged spleen and rose spots of typhoid. Chronic cases are another matter. There may be 2 or more diseased conditions co-existent and not necessarily directly dependent on each other; though each has its special place in the picture, and exerts its own peculiar influence in making the patient ill. Pathognomonic symptoms have little place in diagnosis in this class of patients, and if dependence is placed on them they are apt to create false leads. The approach to the chronic patient should be *primarily* from the standpoint of disturbed physiology, searching *secondarily* for an exact diagnosis, or disease entity which may be named, and likewise regarded as summarizing the patient's pathology.

In the past 10 or a dozen years there has developed a wide spread acceptance of the idea that the diagnosis of peptic ulcer might be based on the single fact of periodic abdominal pain after eating. Some observers have been so enthusiastic as to go even further, and, according as the interval between the taking of food and the beginning of pain is shorter or longer, have actually postulated the location of the ulcer on the lesser curvature farther from or nearer to the pylorus, or even in the duodenum. This position is not, however, tenable in the light of experience: nor again is it tenable in the light of increasing knowledge of the physiology of the stomach, both in health and when subject to intrinsic disease or to the influence of diseased states of other organs. The effort of still other observers to add to the pathognomonic group the symptom of hyperacidity or acid dyspepsia is even less defensible. The term *acid dyspepsia,* as employed here, is intended to cover conditions both where there is heartburn and where bitter or sour eructation is a prominent symptom. Of the 2, heart-burn perhaps more nearly represents a true hypersecretion of HCl; while acid eructations are merely due to the regurgitation, usually accompanying belching, of stomach content which tastes bitter or acid, whatever the de-

gree of acidity of the gastric juice may be. Hyperacidity is not a good descriptive word for either condition, and should not be employed except where gastric analysis has confirmed or justified the term. Acid dyspepsia will be the term used here to denote both these symptoms.

The subject will be discussed under the following headings:

(1) Brief résumé of the means for accurate diagnosis of peptic ulcer.

(2) Description and discussion of the material employed in this study.

(3) Certain physiologic considerations.

(4) Their adaptation to the 2 symptoms under discussion.

(5) Conclusions.

Accurate Diagnosis

There are 4 means at hand for gaining information about ulcer cases, and the difficulties of diagnosis are such that where all are available no one of them should be neglected. In any given case each method may yield important information, and until the findings in all 4 fields have been correlated, no conclusions should be drawn.

Briefly these are: History; physical examination; x-ray examination; laboratory data.

In the *history,* of chief importance are the 2 symptoms already mentioned: *periodic pain,* especially that of the "hunger" type; and *acid dyspepsia.* But, as will be seen later, it is of equal importance to exclude by means of the history numerous other conditions; i. e., the abuse of tobacco and alcohol, bad eating habits, constipation, evidence of appendix or gall-bladder disease, cardiovascular conditions and focal infections.

On *physical examination* tenderness, and sometimes rigidity, in the epigastrium may be more or less well marked. It must not be forgotten that workers in the field of "constitution in relation to disease" assert with considerable reason that ulcer is most prone to occur in the patient of asthenic habitus.[1]

X-ray evidence may be more nearly diagnostic than any other single factor. In 1926, Holmes and Ruggles,[2] laid down 4 criteria: (1) Niche; (2) incisura or spasm; (3) increased peristalsis; (4) stasis, i.e., 6 hour retention. Earlier, in 1920, Carman[3] had given various direct and indirect criteria for x-ray diagnosis; but all that is necessary to say here is that, barring the demonstration of a constant niche, or organic hour glass stomach, x-rays should not alone be depended upon for the diagnosis of ulcer.

In the *laboratory examinations* complete blood count may show an increase in the polynuclear leukocytes; evidence merely of an infective process. Of some importance may be the demonstration of a secondary anemia, suggesting seepage of blood from an ulcer over a long period of time. The urine is unimportant. Occult blood in the stool may be of value if care be taken to exclude diet as a factor. Gastric analysis may show blood in the gastric contents, or an hyperacidity; but trauma by the stomach tube may have caused the bleeding, and hyperacidity is not a constant finding in ulcer, and is often seen in other conditions.

These are the principal diagnostic features of an ulcer case, and wherever possible all should be employed. Even then the task of reaching an accurate conclusion is often enough difficult. However, there are many occasions when the roentgenologist and the pathologist are not available, and the practitioner is forced to rely on his own unaided efforts. It was with a view to this situation that the present study was undertaken, in order to determine how far the 2 symptoms —*periodic pain* and *acid dyspepsia*—might reasonably be relied upon to establish the diagnosis of ulcer. There can be little doubt that ulcer is a far more common condition than is generally suspected. Probably, many ulcers arise, run a short or mild course, and ultimately heal of themselves without their presence having been suspected. It seems clear that in its simpler forms ulcer is a condition susceptible of spontaneous cure. On the other hand, there can be little question that the diagnosis is sometimes—perhaps too often —made on insufficient grounds. It requires in every case the exercise of careful study and good judgment. Diagnosis is possible with fair accuracy without films or test tubes, but inadvisable where laboratory facilities are available.

Material

Table No. 1 shows 255 cases which exhibited periodic pain or acid dyspepsia, or both symptoms in combination, and gives the diagnoses reached after careful study which comprised in each case, besides history and physical examination, such laboratory and x-ray work as was indicated. However, gastric analysis was done in a small number only, since the amount and importance of information so obtained are not as a rule commensurate with the expenditure of time, effort, and discomfort required of both examiner and patient. As all but a few had gastro-intestinal films and fluoroscopic work, and in addition much of the material has been checked and corrected by follow-up observations, it probably represents a fair degree of clinical accuracy. There is much that is interesting to be culled from this table, but attention will be centered on the relationship of ulcer to other miscellaneous conditions with respect to the symptoms under discussion.

TABLE NO. 1

To show diagnosis in 255 cases exhibiting periodic pain or acid dyspepsia or both symptoms

	Periodic Pain	Acid Dyspepsia	Both Symptoms	Total
Ulcer peptic*	11	7	30	48
Appendicitis chronic**	18	33	26	77
Cecal stasis	2	10	1	13
Cholecystitis and lithiasis***	6	9	5	20
Cancer gastric	3	0	1	4
Tobacco toxicosis	3	9	5	17
Focal infections	4	16	2	22
Cardiovascular disease	4	15	2	21
Anemia primary	1	1	0	2
Anemia secondary	0	2	1	3
Anemia splenic	1	0	0	1
Pulmonary tuberculosis	0	10	0	10
Bronchitis	0	1	0	1
Hypothyroidism	0	3	1	4
Hyperthyroidism	0	4	0	4
Tumor thyroid	0	1	0	1
Dyspituitrism	0	1	0	1
Retroverted uterus	0	2	1	3
Diabetes mellitus	0	1	0	1
Renal calculus	0	2	0	2
	53	127	75	255

* From a total list of 50 ulcer cases.

** From a total list of 119 chronic appendicitis cases.

*** From a total list of 46 chronic gall-bladder cases.

TABLE NO. 2

To show percentage of ulcer cases exhibiting these 2 symptoms singly or in combination

	Periodic pain alone or with acid dysp.	Acid dyspepsia alone or with pain	Periodic pain alone	Acid dyspepsia alone	Both symptoms combined
Peptic ulcer	41 - 32%	37 - 18%	11 - 20%	7 - 3%	30 - 40%
Other conditions	87 - 68%	165 - 82%	42 - 80%	120 - 97%	45 - 60%

In all, 128 of the series complained of periodic pain alone or in combination with acid dyspepsia; 41 of these (32%), are peptic ulcer; 87 (68%), are other conditions.

Similarly, 202 complained of acid dyspepsia wihout pain or with periodic pain, and here only 37 (18%), are ulcer, and 165 (82%) are miscellaneous.

These 2 symptoms in combination are noted in 75 cases; of which 30 are ulcer cases (40%).

Periodic pain by itself was indicative of ulcer in 20%, and acid dyspepsia alone in 3%, of the total cases exhibiting those symptoms singly.

It cannot be held, then, that either symptom is in the slightest sense pathognomonic; only that periodic pain by itself or with an acid dyspepsia is suggestive, because 32% and 40% respectively of such cases in this particular group were due to ulcer.

One other significant fact is worthy of comment, though it has no great bearing on clinical diagnosis. In Table No. 3 are given the total number of cases of ulcer, and of chronic appendix and gall-bladder disease, studied in compiling this table. These are taken from a previous study[4] that embraced all cases which had indigestion in some form as a major complaint. This list comprised totals of 50 cases of ulcer, 119 of chronic appendicitis, and 46 of gall-bladder disease. Of

TABLE NO. 3

To show the percentage of all cases of ulcer, gall-bladder, and appendix disease in a series* of 500 complaining of indigestion in some form and which exhibited one or both of the symptoms under discussion.

	Number of original study showing these diseases	Number which appear in this series	Percentage of these cases which exhibit these 2 symptoms
Peptic ulcer	50	48	96%
Chronic appendicitis ..	119	77	64.7%
Cecal stasis	27	13	48.1%
Cholecystitis and lithiasis	46	20	43.5%

*Reported in N. J. State Med. Jour., June 1928,[4] and then comprising 224 cases of indigestion. Since that time the number has been increased to about 500.

these, 96% of the ulcer cases which exhibited some type of indigestion had one or both of the symptoms under discussion in this paper, while only 65% and 43% of the appendix and gall-bladder cases, respectively, were similarly affected. Therefore, periodic pain and acid dyspepsia seem to be much more nearly constant in known (i.e., already diagnosed) ulcer cases as a group, and their entire absence in any given case helps to exclude the diagnosis of ulcer.

Physiologic Considerations

Such are some of the facts as developed by a study of this particular series of cases. In order to explain them it will be essential to review certain physiologic considerations and then to theorize from them to the facts as they appear. It seems best to consider symptoms as expressions of disturbed physiologic function, rather than in terms of pathologic function; for function itself is a physiologic conception or attribute; while disturbed function is the effort of the body to approximate normal under conditions of pathologic structural change.

It is essential to remember 4 important elements in the production of gastric symptoms:

(1) Reverse peristalsis.

(2) Increased or abnormal resistance at the pylorus to the expulsion of stomach contents.

(3) Interference with the musculature of the stomach, or with normal gastric tone.

(4) Irritation of the gastric lining, either general or localized.

(1) *Reverse peristalsis.* To some degree this plays a part in the mechanism of normal digestion.[5] As the liquified contents of the stomach gather near the pylorus ready for expulsion they are, if too strongly acid, partially neutralized by regurgitation of the alkaline duodenal contents through the pylorus. This is what Morton calls preservation of the acid-alkali balance at the pylorus.[6] As this goes on under ordinary normal conditions, it is evident that a slight exaggeration of this normal reversion of peristalsis will induce disturbance of function, which may attain any degree from mild regurgitation through the cardiac opening into the esophagus, to the more severe manifestation of vomiting. Nausea, acid or sour eructations, heart-burn, coated tongue and bad breath, feeling of fulness on beginning to eat, and vomiting are symptoms which may be set down to excessive peristalsis.

(2) *Increased or abnormal resistance.*[7] Resistance at the pylorus to the expulsion of stomach contents results from any sort of local obstruction; such as adhesions, cicatrix of ulcer, congenital muscular hypertrophy, reverse peristalsis to an abnormal degree; and for functional reasons. That is, there may be a protective reflex closure of the pyloric sphincter due to too much acid, poorly liquified food, or inflammatory conditions beyond or below the pylorus. Likewise, emotional stress induces a contraction of all sphincters, as pointed out by McDowall,[7] and very clearly argued in a recent article by Alvarez.[8] *Abdominal pain* is thought to be commonly caused by abnormal (i.e., increased or badly timed) muscular contraction in stomach, or intestine or other hollow viscus.

It may be the result also of irritation of the parietal peritoneum. That the visceral peritoneum is insensitive, is common surgical experience. *Gastric pain* is perhaps chiefly due to muscular tension or overcontraction. Overactivity of the pyloric sphincter, i.e., overcontraction, besides inducing pain, causes a damming back of HC1 and then symptoms of acid dyspepsia. Later a true oversecretion of HC1 may occur, partly as a result of reflex action which increases the HC1, and partly due to the production of histamin, a product of protein decomposition which may develop from delay in the stomach, and which stimulates secretion of HC1.[7,9] Such increased resistance at the pylorus may result from so simple a matter as stasis in the lower bowel; which is readily cured by attention to regular emptying of the bowels. It is recognized that constipation commonly causes anorexia, bad taste and foul breath, then hyperacidity, and other symptoms.

(3) *Interference with musculature and tension.*[7] Long continued interference from such a reflex or organic pyloric obstruction may induce atony of the stomach wall, with a sense of fulness and heaviness; bacterial decomposition results and there is increased gas formation in the fundus. Carbohydrate is the food which produces most of this decomposition, and as this food is bulky, being made up largely of coarse vegetables, it increases obstructive irritation. We then have an overworked stomach which may result purely from overloading.

(4) *Irritation.*[7] This may be *general,* i.e., of all or a considerable part of the stomach wall, as from irritant poisons; or *localized,* as from ulcer. The pain in ulcer usually bears a constant time relation to the taking of food. HC1 increases, due to increased pyloric resistance, and this increase serves, by irritating its surface, to delay healing of the ulcer. Pain is due to gastric spasm, which results first from the presence of the ulcer, and later from the irritant action of the excessive HC1 on the ulcer. That is, both these factors induce excessive and abnormal contraction. For some unexplained reason an ulcer may cause no symptoms till hemorrhage or perforation occurs (rare).

Application of Physiology to Symptoms

This explanation of the mechanism of gastric function gives a clue to the production of periodic pain and of acid dyspepsia in conditions other than ulcer. It has been stated above that pain of gastric origin is caused usually by abnormal contraction of the musculature of the stomach. We know of no other organ which exhibits the same *periodicity* of *function* with respect to meals. The explanation would appear to lie in this: The stomach is the first receptacle which holds food for any length of time, and food enters the stomach very quickly after mastication is begun. The stomach has a normal rhythmic manner of conducting its digestive function: begins slowly, works up to a climax of activity from 1 to 2 hr. after food begins to enter, and then slowly comes to rest. The entire process consumes from 2-4 hours. Ordinarily the rhythm of peristalsis and secretion go hand in hand. That means that any factor, either in the stomach affecting it directly, or in some other organ affecting it indirectly, is always prone to disturb its function at a particular time in the digestive cycle, because the digestive process must work itself up to a certain grade of activity before interference will generate a symptomatic response. Such a disturbance when causing pain, we have seen to be most commonly due to increased resistance at the pylorus. Consider an ulcer: the irritation is probably not produced by food, but by an overload of HC1; and the development of this hyperacidity is the factor indirectly causing pain by irritation and consequent increase of pyloric resistance. Acid secretion is ordinarily at its height in 1-2 hr. after food is taken, and this would, at about that time, directly irritate an ulcer situated on the gastric wall. If the ulcer is beyond the pylorus, i.e., duodenal, the irritant acid does not get to it until later, because the hyperacidity itself interferes with expulsion of the too acid contents; and because in the early stages of digestion the alkaline bile and pancreatic juice are sufficient to neutralize it when it appears in the duodenum. Later, when the biliary and pancreatic fluids are exhausted, they can no longer control the excess acid of the gastric juice, which takes a longer

time to leave the stomach under the abnormal conditions.[6] Hence, pain occurs 3 or 4 hr. after eating, when the stomach is comparatively empty of food; and, consequently, the relief resulting from ingestion of food which mixes with the excessively acid gastric juice and thus lowers the acid content and diminishes irritation for the time being until the digestive cycle again reaches its height.

Consider gastric pain caused by a chronic appendicitis or any other factor which may affect the pylorus indirectly. We deal with a cycle function, and not until it reaches a certain stage is it likely to be subject to outside influences. Its beginnings are slow, secretion and peristalsis are comparatively at a low ebb at first, and not until they have worked up to a considerable degree does resistance at the pylorus increase to such a point that it will disturb the muscular rhythm sufficiently to cause pain. The explanation is quite similar to that of ulcer pain. Or, in extreme conditions, the lower intestinal lesion may have induced so highly irritable a state in the entire alimentary tract that the very first food which enters the stomach causes pylorospasm and its resultant symptoms. Here, the route of impulse from lesion to symptom is the same indirect one as when pain develops later in the gastric cycle; the difference in timing being largely a matter of differing degrees of irritability. Pain from abnormal contraction of small or large bowel has not the same opportunity to be periodic simply from spatial considerations. There are 30 feet of intestine, and the function goes on there at a later time than in the stomach, and without the same opportunity to synchronize itself with food ingestion.

It is not within the province of such a paper as this to attempt a comprehensive exposition of present day gastric physiologic study; nor would time or space permit the incorporation of a review of the fascinating work of Cannon, Carlson, Alvarez, and many others. Only those features fairly established, and likewise most applicable to the subject, have been employed; and it is hoped that this attempted explanation will at least offer an hypothesis for the production of the 2 symptoms under discussion, and their appearance not only in ulcer but in conditions which may affect the stomach in an indirect manner.

Conclusions

(1) Periodic pain and acid dyspepsia cannot be regarded, either singly or in combination, as symptoms pathognomonic of ulcer, because they may occur as a result of any state which will produce either directly or indirectly increased pyloric resistance.

(2) They are clinically suggestive of ulcer only after a considerable number of other disorders have been excluded; but that they are helpfully suggestive is evident from the fact of their more consistent presence in ulcer than in any other condition.

(3) Diagnosis of ulcer, to be accurate, must be based on every known means of investigation: but where laboratory and x-rays are not available a fair degree of probability may be assumed if painstaking exclusion of other pathologic states is accomplished.

References

1. Draper; The Human Constitution.
2. Holmes and Ruggles; Roentgen Interpretation.
3. Carman; Roentgen Diagnosis in Diseases of the Alimentary Canal, 2d Ed.
4. Lathrope; Indigestion as an Early Symptom. N. J. State Med. Jour., June 1928.
5. Alvarez; Mechanics of the Digestive Tract.
6. Morton; Observations on Peptic Ulcer. Am. J. M. Sc., Vol. 177, No. 1.
7. McDowall; Clinical Physiology.
8. Alvarez; Ways in Which Emotion Affects the Digestive Tract. J. A. M. A., Vol. 92, No. 15.
9. Compertz; Histamin as a Gastric Stimulant. Am. J. M. Sc., Vol. 177, No. 1.

FATAL BACTEREMIA DUE TO ESCHERICHIA PSEUDODYSENTERIAE (KRUSE)

Robert A. Kilduffe, M.D.,
Director of Laboratories, Atlantic City Hospital,
and
W. W. Hersohn,
Atlantic City, N. J.

The following report is made because of the infrequent pathogenicity of the organism causing death.

C. F., colored, male, laborer, aged 36, was admitted Nov. 15, 1928, on the medical ser-

vice of Dr. W. D. Scanlan with a diagnosis of bronchopneumonia and paratyphoid fever. The family history was of no immediate importance. Up until 3 days before admission the patient felt well when, on November 12, he had repeated attacks of vomiting. The next day he was feverish, unable to talk clearly and appeared irrational. A physician was called on Nov. 15, who, on the next day, found him delirious and hard to control.

On hospital admission the temperature was 103°, pulse 68, respiration 24. The patient was irrational with occasional lucid intervals.

The physical examination showed injected eyes, and râles at the base of both lungs, most marked on the right side. There was no evidence of consolidation. The heart sounds were somewhat faint, the pulse somewhat dicrotic, but there were no murmurs. The spleen was slightly enlarged. There were no other findings of interest.

While the state of the patient rendered any coöperation on his part as to history difficult, thus making a definite diagnosis impossible at this time, a diffuse cerebrospinal syphilis was under consideration and a tentative diagnosis was made of psychosis of undetermined origin.

The laboratory findings were as follows: Blood urea N 18 mgm.%. Blood count: Hb. 12.42 gm.% (90% Dare); R.B.C. 4,560,000; W.B.C. 4350; Polys 36%; Lymphocytes 41%; Trans. 13%. Spinal fluid: Contains large amount of (adventitious) blood. Wassermann (Kolmer) negative.

Nov. 19. Widal: Serum tested against B. typhosus, para A. and para B. in dilutions of 1:20 to 1:640. B. typhosus agglutinated 1:160. B. para A. agglutinated 1:320. B. para B. no agglutination. Blood Wassermann (Kolmer) and Kahn: Negative. Blood culture after 24 hours gave a pure growth of a Gram-negative, motile bacillus.

The temperature during the next few days varied from 103° to 99°, the respirations from 26 to 56, and the pulse steadily rose to 140.

On November 21 the patient died, 6 days after admission.

Postmortem findings: The body is that of an adult male negro 5 ft. 10 in. in height and weighing about 130 lb.—thin and emaciated—poorly developed. No scleral jaundice. No deformities. Tremendous hornified callosities on soles and heels of both feet. Midline incision from episternal notch to symphisis pubis. No free fluid in abdomen. The large intestines are dilated with gas. Small intestines bluish and congested with areas of postmortem autolysis. No areas of ulceration found. The liver is normal in size, weight and color. Normal appearance on cut section. Gall-bladder normal. Kidneys normal in size, weight and color, and normal on cut section. The spleen is normal; as is the pancreas. The left lung is apparently normal. The right lung shows the lower lobe to be congested peripherally. No consolidation around bronchi. Thick yellow purulent mucus exudes from bronchi. No free fluid in chest cavities. The heart; ½ oz. of straw colored fluid in pericardium. Left ventricle in state of contraction. Right heart tremendously dilated with walls thin and soft. Right ventricle about 2 mm. thick. Left ventricle moderately thick and firm, valves normal, no sclerosis. Postmortem heart's blood culture taken.

The organism found in the blood culture both before and after death presented the following characteristics: Gram-negative, motile bacillus giving, at 24 hours, small, translucent, partially colorless colonies on eosin-methylene-blue agar which, after 48 hours, increased in size and presented a blue center. On Russell double sugar there was an acid butt and alkaline slant with a small amount of gas. With lead acetate agar there was, occasionally, a small amount of gas and constantly a brownish discoloration along the stab inoculation. On plain agar the growth was slightly raised, moist, translucent, and brilliant. In purple milk there was a transient acidity in 24 hours, the reaction being neutral after 4 days. Broth cultures showed a fine even turbidity and a fine sediment. There was no pellicle. Gelatin was not liquified and indol not formed. The methyl red reaction was positive. Acetylmethylcarbonal was not formed.

The sugar reactions were as follows:

	Acid	Gas
Dextrose	+	+
Lactose	+	+
Maltose	+	+
Mannite	+	+
Xylose	+	+
Dextrin	+	+
Sucrose	0	0
Dulcite	0	0
Salicin	0	0

When first agglutinated and later, after daily transplants for 10 days, the organism was not agglutinable by B. typhosus, para A. or para B. sera.

These tests were again repeated 3 months later (January, 1929).

The organism was found not only in the heart blood before and after death, but also in the urine and feces during life.

In accordance with the dicta laid down in Bergey's Manual, it was identified as Escherichia pseudodysenteriae (Kruse).

INTESTINAL OBSTRUCTION: PRESENT DAY CONSIDERATIONS AND RATIONALE OF TREATMENT

Edward G. Waters, Ph.B., M.D.,
Jersey City, N. J.

Intestinal obstruction is a condition in which fecal movement is impeded or prevented, either by partial or complete, acute or gradual, occlusion of the bowel lumen. The primal cause is entirely mechanistic excepting those conditions producing paralysis of the muscular wall of the bowel. The paralytic form may be reflex or toxic, due to inflammations or intestinal trauma or shock. Mechanical obstruction is due to blocking of the lumen of the bowel from within, as with fecal masses, gall-stones, foreign bodies, or due to constricting bands, volvulus, intussusception, adhesions, hernias, etc. Compression of the intestine from without, as from cancer of the pancreas, ovarian cysts, etc., or concentric narrowing of the bowel, as from tuberculosis and syphilis, is prone to cause chronic obstruction.

Cases of acute obstruction can be divided, as suggested by de Quervain, into 3 clinical groups:

(1) Acute, arising on the basis of chronic obstruction.

(2) Intermittent, sudden temporary attacks of acute obstruction alternating with symptomless periods.

(3) Sudden obstruction without previous warning.

The majority of organic obstructions are found in men (67-75%) and over 85% are obstructions of the small intestine; 80% are said to be in the lower abdominal regions, and 2/3 of these in the ileocecal region.

Mechanical obstructions frequently follow so-called "clean abdominal operations"; and strangulation or obstruction by bands and incarcerated hernia accounts for 40% of the causes of organic obstruction. Volvulus accounts for over 15%. Intussusception is the most common cause in young children. An acute obstruction following a partial obstruction from fecal accumulation is common in elderly people, and is one of the few agents removable by non-surgical means. Gall-stones almost never cause obstruction, unless forming the nucleus for an enterolith.

Symptoms and Signs

The time of onset and type of symptoms of acute intestinal obstruction are determined by the causative factor. Where there is complete blockage of the bowel, as with adhesions, bands or calculi, except for pain the symptoms are somewhat delayed. When to the mechanical factor of obstruction is added interference with the arterial, venous, and lymphatic circulation of the bowel and mesentery—as in volvulus and strangulated hernia—shock, toxemia, and early peritoneal infection complicate the picture. Here, systemic reaction is manifested early and it is when strangulation accompanies complete and sudden stoppage of the bowel that the worst condition is encountered.

The characteristic symptoms of intestinal obstruction are abdominal pain, vomiting, obstipation and shock. The one early symptom of obstruction is pain, and its appearance is almost concurrent with production of the obstruction. In the absence of circulatory inter-

ference, pain may exist for some time as the only symptom. It sets in as a steady pain marked with fierce exacerbations, the latter being due to the colic of aggravated peristalsis. The pain is usually generalized, but when due to small intestine involvement is referred to the umbilical area during the exacerbations. That associated with large intestine obstruction lacks the early severity of the small intestine obstruction, and is usually referred to the site of obstruction. The exacerbations may be as severe, but the steady pain is not so marked, or, rarely, may be absent. The pain persists until peritonitis supervenes, when it abates for a time and changes in character.

Vomiting is an early and prominent symptom. It comes on long before regurgitation of intestinal content into the stomach takes place. The latter causes its continuance, but its early appearance is due to reflex action on the vomiting center through vagal stimulation. The sequence of gastric and bilious vomiting and stercoraceous regurgitation is characteristic and continues whether or not food or fluid is given by mouth. True fecal vomiting is rarely observed.

Obstipation is a natural accompaniment of obstruction. It should be recalled, however, that the contents of the bowel below the obstruction may be expelled subsequent to its development, and attaching too much importance to one bowel movement is condemned.

Time of appearance and degree of shock or collapse depend upon the amount of bowel involved, interference with circulation, and the level of obstruction. When shock is early and severe, we may expect considerable bowel involvement with strangulation (e.g. volvulus). Collapse coming on in case of low obstruction is slower and due to the systemic action of toxic bowel content, continued vomiting, and alteration of the blood constituents.

The signs of distention, waves of peristalsis, respiratory embarrassment from subdiaphragmatic pressure, subnormal temperature, high leukocytosis, indicanuria, lowered blood chloride, and high nonprotein nitrogen aid in the diagnosis, which should be made earlier, from the symptoms, in most cases.

Diagnosis

The picture of intestinal obstruction is usually sufficiently definite to permit of early diagnosis. Fortunately, there are but few medical conditions with which it may be confounded. The most important of these is acute enteritis, with abdominal colic, vomiting and distention. Occasionally mucous colitis will simulate obstruction; but there is no shock and vomiting seldom persists.

The non-obstructive conditions most closely simulating obstruction are those associated with or conducive to internal hemorrhage or shock, i.e., ruptured gall-bladder, acute hemorrhagic pancreatitis, perforated ulcer, ruptured tubal pregnancy, strangulation of pedicled tumor, mesenteric thrombosis, and appendicitis with peritonitis. These conditions demand surgical aid, and an error in exactitude of diagnosis does not deny the patient the chance to which he is entitled. The first step in investigating a case is to forbid purgatives, food and opiates. The stomach should be lavaged, an enema and recurrent irrigation of the bowel given, a blood count and urinalysis for chloride excretion and indican made.

The site of obstruction is sought for, the hernial orifices being carefully examined, and the abdominal wall searched for scars and evidences of drained wounds. Rectal and vaginal examinations are required. Abdominal palpation may reveal a mass or tumor at the seat of pain. Suppression of urine, no distention, and early collapse with increased CO_2 combining power of the blood will indicate a high intestinal or duodenal obstruction. The severe acidosis in these circumstances probably is the most important factor in a fatal termination.

Mid-abdominal distention and rapid progression of symptoms indicate ileal or cecal obstruction. A more marked, general distention, pronounced in the flanks, with tenesmus alternating with painless periods, and slower progress of symptoms, indicates colic, sigmoidal or rectal obstruction.

The causative factor is often difficult if not impossible to determine. Indeed, if the fact of obstruction and its site be determined, the cause is of lesser importance. Intussusception in children is easily diagnosed. Acute obstruction due to adhesions may be over-

looked for some time, but volvulus is more easily recognized. Postoperative adhesions from drained cases are the most important etiologic agents in the causation of intestinal obstruction following appendectomy, regardless of time interval. The history of antecedent pelvic peritonitis, especially postpartum, may indicate an adhesion as the obstructive agent, and vaginal examination will often determine its location. Fecal impaction is a frequent cause in advanced age and is suggested by chronic obstipation, flatulence, and the diarrhea of constipation. The doughy colon is usually palpable. The presence of internal hernia cannot be diagnosed in an acute case. Mesenteric thrombosis is suggested by hematemesis, rectal examination, and bloody diarrheal passages in the presence of severe obstructive symptoms.

There are a large number of rare causes of obstruction, but it may be said that 4 of 5 are in the small intestine, and 2 out of 3 of these are in the ileocecal region. Intussusception is the commonest cause in children, while strangulation or obstruction by bands and incarcerated hernias comprise most of the organic causes in adults. Fecal impaction is the most common cause in the aged, with adhesions and tumors following as less frequent causes.

Prognosis

Prognosis depends upon the nature of the obstruction and the time interval of its production and relief. Except for obstruction due to fecal impaction, which is amenable to medical measures, the prognosis is entirely dependent upon early and sensible application of antitoxic and surgical treatment. As with perforated peptic ulcers, the death rate parallels the time curve—hence the importance of early diagnosis and treatment.

In complete obstruction with strangulation, death in neglected cases occurs in 3 to 5 days, while in simple occlusion the duration of life may be 1 to 2 weeks. The viability of the intestine is of great importance, as a fatal toxemia can result in 24 hours if there is death of a bowel segment, as shown by Eisberg. Finney, in 10 years had a 36% mortality with 245 cases. Where the obstruction was relieved within 12 hours the mortality was only 5%.

Physiologic and Chemical Consideration

In obstruction we meet with intestinal retention of toxic material under pressure. The nature of this toxic material has been the object of intensive research. Whipple and his associates isolated toxins resembling proteoses in obstructed intestinal loops. It was observed that strangulation increased not only the elaboration, but also the absorption of these toxins. These workers also noted an increase from 3 to 10 times the normal of the non-protein nitrogen bodies in the blood, according to the severity of the condition. A low chloride content of the body accompanies the free sodium uniting with the carbonates to give sodium carbonate and eventually an alkalosis. Orr and Haden noted sharp rise in the N.P.N., urea N., and CO_2, and fall in chlorides, after high intestinal obstruction. Eisberg determined that the degree of toxemia is related to the N.P.N. level and dependent upon location of the obstruction in relation to the duodenum and the type of obstruction. The high N.P.N. is due to an increased protein or tissue destruction, as the kidney dye tests are normal. Different workers have attributed the toxemia to gut necrosis or bacterial action, or both. Williams, in England, hypothecates that the toxemia, whether mechanical or due to peritonitis, is due at least partially to absorption of the B. Welchii toxin. The toxin is found only in the small intestine in intestinal obstruction. Eisberg concludes from his experiments that the damaged intestinal tissue is the deciding factor as regards lethal outcome and that the breaking down of the host protein molecule is an important factor in production of toxic matter. Foster and Hausler believe death in uncomplicated cases of acute obstruction is due to starvation; hypochloremia not being marked and the blood chemistry changes and dehydration duplicating those conditions found in starvation. Portis and Portis could relieve high experimental obstruction in dogs by using hydrochloric acid and washing out the obstructed loops with salt solution. Gatch, Trusler and Ayres believe gangrene of the

gut from pressure necrosis, gaseous distention, or obstruction of mesenteric circulation, is the chief factor rendering intestinal obstruction such a desperate condition, thus supporting Eisberg.

The clinical application of the above work in the past few years, has materially changed the treatment, prognosis, and results in acute intestinal obstruction.

Treatment

Since surgical measures and their adjuvants constitute the treatment of acute intestinal obstruction, with few exceptions, it is with these that we will concern ourselves. The tremendous drop in the mortality of intestinal obstruction is largely due to 2 factors; first, the clinical application of experimental studies, and second, conservative operations. For example, Coleman reports a drop in mortality from 50% to 11% after using salt solution in acute obstructions. Since the cause of death is the absorption of a toxin developed in the process of protein disintegration, the direct attack on the toxemia even before operation is as important as relieving the cause. The need of preoperative gastric lavage, enemas to thoroughly cleanse the bowel, parenteral administration of fluids, and conservation of body heat, is self evident and only needs mention. Orr and Haden have demonstrated that administration of sodium chloride before as well as after operation is essential. With a blood chloride of 400 or less, in intestinal obstruction, generous administration of sodium chloride is indicated, intravenously in 5% solution or subcutaneously in 1 to 2% solution. In severe cases, Orr and Haden recommend giving enough at the initial dose to equal 1 gm. of sodium chloride per kilogram of body weight. The blood chloride can easily and should always be returned to normal before operation.

The choice of anesthetic is important. Any general anesthetic, especially ether, increases the mortality. Ether inhibits peristalsis for 24 to 36 hours, and for this reason alone is contraindicated. Regional anesthesia, either field block or spinal (subarachnoid), is the safest. Spinal is the most satisfactory, if added precautions are taken to prevent a further lowering of the blood pressure. It provides ideal anociation, permits of retraction and exposure without trauma or shock, lessens wound bleeding and increases intestinal tone through unrestricted vagal action.

Operative procedure depends entirely upon the nature of the obstruction, the viability of the intestine and the patient's general condition. In the presence of a marked toxemia and bowel strangulation, a conservative enterostomy is the choice. Intestinal anastomosis is dangerous, for bowel distention and edematous tissues prohibit safe suturing, and it may contribute a lethal blow to an overburdened organism. A gangrenous loop of bowel must be excised, but the ends may be brought to the surface and anastomosis postponed. The obstruction should be relieved if it seems safe to do so, but a patient's chance should not be ruined by hunting for an obscure lesion in a maze of tremendously distended, eviscerating intestines. A simple enterostomy will often save a hopeless seeming case if the accompanying surgical onslaught is not too severe.

The site of enterostomy is a subject of much discussion. It is performed above the site of obstruction, and most often in the lower ileum. Since Bonney's paper in 1916, jejunostomy has found favor with some surgeons. Orr and Haden have recently stated from their experimental studies and observations that the clinical value of jejunal drainage for obstruction of the small intestine is yet to be proved. Graham, of St. Louis, also warns against the growing tendency to perform jejunostomy in all cases of acute obstruction.

A modified Witzel technic is employed for all enterostomies, using a No. 16-18 F catheter. By preference, the tube is brought out through the omentum, and is not attached to the abdominal parietes, so that closure upon removal of the catheter may be spontaneous. The tube may be brought through a stab wound and the abdominal incision closed, if no drainage is necessary.

Postoperative treatment consists of parenteral administration of fluids, salt and glucose, and employment of the enterostomy tube for instillation of fluids as well as drainage. Judi-

cious use is also made of pituitrin, eserin and other medicaments.

We may epitomize the treatment as follows: (1) Preparation of the patient for operation by gastric lavage, administration of fluids to overcome dehydration, and sodium chloride in sufficient amount to return the blood chloride level to normal. (2) Operative intervention to remove the primary condition if possible, and to drain the bowel of its toxic content. (3) Resumption of preoperative measures, plus administration of glucose to spare nitrogen metabolism, enhance the liver's detoxifying function, reduce the non-protein nitrogen of the blood and promote diuresis.

PREOPERATIVE AND POSTOPERATIVE TREATMENT OF DIABETIC PATIENTS; Report of 56 Cases

Aaron E. Parsonnet, M.D., F.A.C.P.,
Attending Physician;
Abraham L. Reich, M.D.,
Anesthetist-in-Chief;
and
Joseph Skwirsky, M.D.,
Associate Physician, Newark Beth Israel Hospital,
Newark, N. J.

Only a comparatively short time ago, the diabetic patient about to undergo an operation was looked upon as a very poor risk, and the surgeon called upon to perform the operation considered himself the goat of the medical man, because of the only too frequent disastrous results in spite of his best efforts. Looking over the statistics of operative deaths among diabetic patients in various clinics taken from the pre-insulin era, we have found great variation; some gave a mortality rate as high as 35%, others from 15 to 20%. These figures included minor surgical procedures as well, and the percentage in private practice was still higher. Since the advent of insulin and utilization of present day methods of management, diabetes has become a much lessened surgical risk.

In selecting cases for this paper we confined ourselves strictly to experience of the last 2 years, and not from previous years when we were still groping in the mysterious ways, some real and some imaginary, of insulin. Only those were included over whom we had complete charge from the time of admission to the hospital, during the operative period, and complete convalescence. We omitted cases seen in consultation several days after operation, because of many severe complications encountered. For these obvious reasons we decided not to give our percentage of deaths, for we considered the figures too favorable and therefore misleading.

In reporting these cases we will try to outline briefly the guiding principles, methods of management, and results. The governing principles are not at all revolutionary nor original and coincide closely with present authoritative opinions on this subject, and should be well understood by every physician attempting to treat diabetes.

The following essential points were taken into consideration: (1) A well nourished, not a dehydrated and half-starved patient is essential. (2) Ample storage of glycogen reserve. (3) Reduction of blood sugar to as near normal as possible. (4) Prevention of acidosis through use of insulin, glucose injections, and choice of proper anesthesia. (5) Postoperatively guarding against hyperglycemia with its attendant acidosis, and hypoglycemia caused by insulin overdosage or insufficient food. (6) Constant and unrelaxing vigilance throughout the entire period.

Our procedure will become evident through presentation of our cases, 56 in all. This group comprising 38 females and 18 males with an age range of 6 to 65 years, was admitted with the following surgical diagnoses: Acute cholecystitis, 6; acute cholecystitis with empyema of gall-bladder, 2; acute suppurative appendicitis, 8; chronic appendicitis and cholecystitis, 8; fibroid uterus, 10; fibroid uterus and chronic appendicitis, 2; fibroid uterus and ventral hernia, 2; gangrene of lower extremity, 6; renal calculus, 2; twisted ovarian cyst, 2; acute mastoiditis and sinus thrombosis, 1; diabetic cataract, 7.

Some were admitted with a diagnosis of diabetes, others were discovered to be diabe-

tics in the course of routine hospital examination. The severity of diabetes varied a great deal; i.e., one patient on admission showed 6% sugar in the urine, marked acetonuria, and a blood sugar of 346 mgm. per 100 c.c., while the mildest of the group was treated for a considerable time prior to admission and on examination had a sugar free urine and a blood sugar of 171 mgm. per 100 c.c.

Method of treatment depended upon the urgency of operation, severity of disease, and time allotted to us for proper preparation. We will present briefly the following case history to serve as an illustration of our emergency methods:

A. S., white female, aged 45, was admitted to hospital on March 9, 1927, with a diagnosis of acute appendicitis with cholecystitis. Her illness dated back 2 days, when she began to experience severe cramp-like pains over entire abdomen. On the night preceding admission pain became more intense and localized in the right upper and lower quadrants; pain radiated to the back and patient vomited several times. Her previous history added nothing of importance and did not suggest the presence of diabetes. On physical examination the patient was acutely ill, and in pain. With the exception of local abdominal symptoms, the physical findings were entirely negative; slight tenderness was elicited in the left lower quadrant, and tenderness with rigidity in the upper and lower right quadrants; no masses were felt. Temperature 101°, pulse 100, respiration 22. Examination of the urine showed a high specific gravity of 1.038, trace of albumin, heavy glucose reduction, and presence of acetone. The white count was 13,800, with a differential of 89% polymorphonuclear leukocytes.

This patient was seen in consultation by our group and an immediate operation decided upon. As the patient showed 5% of sugar in the urine, an intravenous injection of 5% glucose with 25 units of insulin was given preoperatively. Gas oxygen ethylene anesthesia was used. Operative findings were free pus in the abdominal cavity and an acutely inflamed and swollen appendix covered with thick exudate. The usual appendectomy technic was followed and wound drained. The patient was placed in Fowler's position and glucose given by rectum.

One hour postoperatively the blood sugar was 312 mgm. per 100 c.c.; CO_2-28.8; and urine showed 6% of sugar. Hypodermoclysis of 500 c.c. of 10% glucose solution with 40 units of insulin were given. This was repeated every 4 to 6 hours and water by mouth given freely. Two days later patient appeared very toxic, temperature rose to 103°, pulse to 130, and respiration to 26; acetone breath very marked and vomiting very frequent. The latter was successfully controlled by a gastric lavage of sodium bicarbonate solution, and 8 oz. fluid was left in the stomach. Water, coffee, orange juice, and tea, were given liberally and 25 gm. of glucose with 25 units of insulin administered every 4 hours. Repeated examinations of the urine were made. In the following 2 days the sugar in the urine was reduced to 1½% and acetone disappeared; blood sugar reduced to 212 mgm. and CO_2 rose to 38.2. Broths, cereal gruels, orange juice, coffee, tea, diluted milk, and water ad libitum, amounting to 1200 calories were given with 20 units of insulin 3 times a day. Five days later, urine became sugar-free, blood sugar reduced to 171 mgm.; patient was put on a diet of C. 50, P. 60, and F. up to 1200 calories while the insulin was reduced to 10 units 3 times a day. More solid food was used. Eighteen days postoperatively patient looked bright and cheerful and was absolutely free from diabetic symptoms, both clinically and from the laboratory standpoint. Owing to a slight sloughing of the wound, patient was kept in the hospital for a longer period; she was discharged on April 14, 1927, just 36 days after admission, with wound completely healed and on a diet of 1400 calories and 5 units of insulin to be given 3 times a day. She was kept on insulin for 6 months. At present the patient is still sugar free, although on a diet of 1800 calories without insulin. We follow the above procedure in all our emergencies; to render this more clear let us again summarize our routine:

Urinary findings and blood sugar estimations are made as soon as possible. An intravenous injection or hypodermoclysis of 500 to 1000 c.c. of 5 to 10% glucose combined with

1 unit of insulin per gram of sugar used, is given prior to or immediately following operation. About 3 hours postoperatively, in addition to fluids by rectum, another hypodermoclysis of same proportion is administered. When patient is free from the influence of the anesthetic and there is no evidence of coma or acidosis, and no vomiting, the treatment is similar to the one employed for those who received proper preoperative care.

In instances where operations could be deferred, from 3 to 14 days, average 7, were needed to fully prepare the patient, and in most cases we were quite optimistic as to the results. First a blood sugar determination, total amount excreted in 24 hours, and presence or absence of acetone were ascertained. Irrespective of the findings, a diet of 1200 to 1600 calories consisting of C. 50 to 70, P. 50 to 70, and F. 90 to 110 grams was given. We found that the above ration seemed to be most suited for patients at rest in the preoperative stage. Needless to say, we have tried the high fat and carbohydrate ratios as well, and though the end-results were the same, our experience proved that it consumed more time to render our patients sugar free. In addition to the routine diet, patients were encouraged to take water in large quantities. The initial insulin dosage is still not well defined and has to be governed largely by personal observation and experience; in the presence of infection even experience counts for little. Our initial dose depends upon the amount of sugar excreted in 24 hours, height of blood sugar, and presence or absence of acetone bodies in the urine. In 9 cases of our series no change of insulin dosage was necessary and patients became sugar-free within a week; in others the amount of insulin necessary was determined only after a great many changes. Blood sugar readings were always obtained prior to operation. In some cases we gave 15 to 20 units of insulin a half hour before anesthesia to combat hyperglycemia incidental to the anesthetic.

The choice of anesthetic and method of administration are given by our collaborator as follows:

The thought of this paper is in accordance with a quotation from Sir Berkeley Moynihan's address on "Hunter's Ideals and Lister's Practice". "Our main concern in these days is with the condition of the patient before and after operation. We seek to make him as safe for surgery as surgery has been made for him".

To begin with: An effort has been made to build up an anesthesia department in our hospital in accordance with the latest teachings. It is now fully 10 years since routine ether has been replaced by other anesthetic agents. Until 5 years ago, nitrous oxid and oxygen, and a little later, ethylene were our chief adjuvants; these were excellent by comparison only. Ether always caused a marked increase in glycosuria, blood sugar, acetone and diacetic acid, with untoward results. Nitrous oxid, oxygen, and ethylene, while chemistry does show some increase in diabetic tendencies with their use, are such improvements over ether, that, relatively speaking, any of their disadvantages may be considered negligible. The actual percentage of blood chemistry increase resulting from use of these various agents is under investigation by us now and will be reported in the near future.

However, to our minds, the greatest advance with the greatest amount of good to diabetic patients with surgical complications has been the introduction of regional anesthesia. This form of anesthesia is new to us only in its extent, because local anesthesia has been practiced by our surgeons for many years. Local anesthesia has 2 disadvantages. Firstly, it is limited in its anesthetic field both as to its width and depth, i.e., injections must be made in each succeeding layer of the abdominal wall, and intraäbdominal examination is only done with extreme difficulty and incompletely. The second objection is that in a certain percentage of cases injections in the area of the operative field cause a breaking down of the tissues, interfering with primary healing. We have been favored with a degree of success by employing either a nerve block or field block augmented by nitrous oxid or ethylene with oxygen when indicated. This method has gradually been abandoned even by the most reserved surgeon for spinal anesthesia and is employed only as an alternative when there is a definite contraindication to

the use of spinal block, or when the surgical field is not amenable to spinal anesthesia for anatomic or physiologic reasons. The chief contraindication to spinal block is hypertension; another contraindication in our practice is age, our youngest patient being 15 years old. Senility is no contraindication, our oldest being 90. This may clash with reports from other clinics, but we are quoting only from our own experience.

Postoperatively: If spinal anesthesia is employed, after 2 or 3 hours water and coffee are given freely and supplemented later by cereal gruels, diluted milk, orange juice, and a sufficient amount of insulin to insure proper utilization. When gas oxygen, ethylene, or ether is used, glucose solution by rectum and hypodermoclysis of 500 to 1000 c.c. of 5 to 10% glucose with 15 to 25 units of insulin is given 2 to 3 hours postoperatively and repeated every 4 or 6 hours until patient is able to take fluids by mouth. Again, urinalyses and blood sugar determinations are made. Within 3 to 4 days a definite diet of 1200 to 1500 calories combined with the proper amount of insulin is given. Scrupulous attention is paid to the kinds of food, constantly bearing in mind the type of operation. Urine analyses are made before each meal. Many of our patients became sugar free and reached almost normal blood sugar levels within a few days. In such instances insulin was decreased gradually by first eliminating the noon dose, then the morning and evening doses were reduced, and finally dispensed with entirely.

Results

(1) All our deaths were not due to diabetes. One patient, male, 6 years old, who had been taking insulin since the age of 2, developed acute otitis media with mastoiditis and sinus thrombosis; he died of suppurative meningitis, as proved by autopsy. Two patients died of pneumonia, and 1 patient, aged 72, was admitted with gangrene of a lower extremity and died of myocardial failure.

(2) No diabetic coma or even marked acidosis occurred in any of our cases, irrespective of type of anesthesia.

(3) Many of our diabetics were comfortable within 3 or 4 days and were able to assimilate the prescribed diets.

(4) Only 2 cases of mild hypoglycemia were encountered and both were easily checked.

(5) With the exception of 6 cases, wounds healed by primary union within the same period as compared with non-diabetics.

(6) Average convalescent period was 23 days.

(7) Almost 1/3 of our patients were able to dispense with insulin while still at the hospital, although on a diet of from 1200 to 1800 calories.

THE MEDICO IN BUSINESS

Edward E. Rhodes,

Vice-President, Mutual Benefit Life Insurance Company,

Newark, N. J.

The Standard Dictionary gives the word "medico" as a synonym for "physician" and adds "often used humorously". Let me say at once that I am not so using it. While daily business association with doctors for a period of more than 40 years has lessened the awe with which I regarded them in my early days, it has not abated my respect. This respect is general. It is higher than that entertained for any other profession related to business. The lawyer is not expected to advise a client until he has consulted his textbooks. The engineer is not deemed qualified to answer, without research, questions involving the intricacies of his calling. Even actuaries, who are generally regarded as very wise men, must not give off-hand opinions. The confidence in doctors, however, is so great that they are relied upon to declare without hesitation the precise trouble with which a patient is afflicted, and the proper remedy therefor.

Regarding one aspect of their business ability, I have been led to think from some things which I have heard, that as business men they do not always act wisely in investing their funds. I have also understood that their ledger accounts, when they keep any,

sometimes show an item of "Accounts Receivable" to which banks would not give much consideration in extending credit.

These introductory remarks are entirely extraneous. Their only excuse is that this is the first, and in all probability the last, time that I shall be asked to speak before such a gathering as this. What I really desire to discuss is the place which the medical profession occupies in the conduct of the great business of life insurance, and to give you some account of investigations which it has made regarding the effect upon longevity of certain physical impairments.

In order that you may have some idea of the magnitude of the business in the conduct of which the medical profession plays a very important part, let me say that disregarding assessment and fraternal organizations, there are more than 300 life insurance companies organized and doing business in the United States. At the end of 1927 these companies had outstanding more than 110,000,000 policies of insurance, while the insurance in force amounted to the stupendous sum of $87,000,000,000.

I have no means of estimating the number of doctors who are employed by life insurance companies for the purpose of making physical examinations, and who are employed in the home offices of the companies for the purpose of passing upon risks, but it may interest you to know that there was paid to these doctors in 1927 as compensation for services performed by them approximately $18,000,000. In view of this fact, it must be admitted that the medico is in business, and it may be worth noting that the compensation which he receives from the insurance company is the surest compensation that he has. In one company, if not in others, he receives his check monthly for all services performed in the preceding month, and is not even required to render a bill.

The successful administration of a life insurance company rests in a very large measure upon the faithfulness with which the local examiner performs his duties, and upon the care and intelligence with which the medical director at the home office of the company does his work. The local examiner must be sufficiently thorough in his work to present to the home office a true picture of the applicant. Carelessness on his part will operate to the disadvantage of the company in that it may result in the acceptance of an unworthy risk or it may operate to the disadvantage of the applicant for insurance in that it may unnecessarily deprive him of the benefits of insurance.

Granting that the work of the local examiner is thorough, the work of the medical director at the home office would be comparatively simple if he was expected to accept only those risks which were unblemished. If that were the case, perhaps the services of the medical director could be dispensed with entirely. Such is not the case. Each life insurance company maintains a certain standard for the acceptance of risks. It is apparent that many applicants for insurance will be above that standard. In order to maintain the standard, therefore, it is necessary that some risks be accepted which are below the standard. It is in the balancing of these superior and inferior risks, so that the standard desired by the company will be maintained, that the work of the medical director is successful. To maintain this balance, it is essential that each applicant for insurance be placed in the particular group in which he belongs, and that the medical director be in a position to assign such group a definite insurance value. He must know the effect of build and family history, and of occupation and habitat, and he must know also the effect of various physical impairments. He cannot, as a matter of course, apply his knowledge to an individual, but he can apply it to a homogeneous group with the confident assurance that the mortality of that particular group will approximate with reasonable accuracy his prediction. These predictions are based upon careful and prolonged investigations of a large number of insured lives, which the medical directors, coöperating with the actuaries, have made over long periods.

The outstanding investigation of the character to which I have referred was completed in 1914. It is known as the Medico-Actuarial Mortality Investigation, partly because it was conducted by a committee of doctors and ac-

tuaries. It embraced a study of approximately 2,000,000 lives and covered a period of 24 years. All of the lives were subject to a careful medical examination, and were accepted by life insurance companies at standard premium rates.

I have heard doctors say that the medical statistics of life insurance companies are not trustworthy because they rest upon data supplied by doctors, located in all sections of the country, whose training, experience and judgment vary between the best and the poorest. It is undoubtedly true that there are local examiners who do not always discover existing impairments. Defective work, however, reveals itself, and leads to prompt discontinuance of the services of the examiner. The statistics which I am about to place before you are not affected by the examiner's failure to note existing impairments. The various groups may be reduced in size by reason thereof; but they are sufficiently large to give a true indication of the facts. It may also be noted that the examiner is asked to state symptoms. The diagnosis is made by the Medical Director at the Home Office, and we can be fairly well assured that each case finds its true category if the symptoms are correctly given. Otherwise, it is true that the medical director may be misled. To hold that there are enough cases of this kind to vitiate or impair the value of the experience is to unjustly indict the medical profession. Lastly, it must be remembered that final compilation of the statistics is in the hands of trained actuaries, whose work, of course, is above challenge.

The investigation to which I have referred furnished a means of measuring, in a way theretofore impossible, the effect in mortality of overweight and underweight. The data entering into this part of the investigation covered 744,672 policies on male lives from 20 to 62 years of age at the time they were insured. When we speak of overweight and underweight, we have reference to the departure from the average weight. It may be noted that the average weight is not necessarily the normal weight. For example, if we have a group of 5 men, 3 weighing 145 lb. each, 1 weighing 140 lb. and 1 weighing 125 lb., the average weight of the group will be 140 lb., but there will be only 1 man of that weight in the group. The normal weight of the men in the group would be 145 lb. That is to say, there are more men in the group of that weight than there are of any other weight. I shall, however, deal with the departure from the average weight.

With respect to longevity, the best weight is not the average weight, nor for that matter is it the normal weight. Considering weight alone, and taking a group of men aged 20 who are of average weight, we find that the mortality on that group is 104% of the standard, while a similar group of the age of 60 would show a mortality of 95% of the standard. The groups showing the best mortality are those whose weight is from 15 to 20 lb. above the average at the younger ages, and 20 lb. or more below the average at the older ages.

A group of men aged 20 whose weight is 40 lb. below the average will show practically the same ratio of mortality as a group of men 60 years of age whose weight is 60 lb. above the average.

A graph showing the mortality of overweights according to the degree of overweight would be very suggestive of the profile view of the general build of heavy men. As the weight increased the bulge in the curve showing the rate of mortality would also increase in very much the same ratio as the bulge of a man's abdomen is likely to increase with increased weight.

The investigation further revealed the fact that height has an effect on mortality. The effect of height, however, may not have the same interest for doctors as the effect of weight, because weight can be controlled and height cannot. I may, however, say in passing that men under 5 ft. 7 in. show the most favorable mortality, and that men over 5 ft. 11 in. show the least favorable mortality.

Let me turn now to some of the results of the investigation regarding the mortality of insured lives which were physically impaired. Please bear in mind that these lives were all accepted at standard rates after a medical examination, and after exercising generally a degree of selection which resulted in exclud-

ing many cases which belonged to the group. Please bear in mind also, with respect to the various groups to which I shall refer, that where there was any impairment other than the one under consideration, the life was excluded from the group. We thus have homogeneous groups, unaffected by any impairment other than the one under consideration.

In a class of syphilitics where there was no doubt of the presence of the disease, where it had been thoroughly treated with not less than 2 years continuous treatment, and where there had been a complete freedom from symptoms of the disease for at least 1 year, the mortality was almost double the standard. In another group of syphilitics where there was no doubt of the presence of the disease, but where it had not been thoroughly treated, and where no details of the treatment were given, the mortality was 174%. In another group where it was uncertain whether the disease ever was present the mortality was 138%. In this latter group the deaths from syphilis were 3% of the total, while the death rate from pneumonia, diabetes and suicide was much higher than the normal, and from locomotor ataxia, softening of the brain and paralysis combined was 5 times the normal.

The mortality in a group where an examination showed sugar in the urine at the time of application, or in which there was a recorded finding within 10 years, was only slightly above the standard. It does not, however, follow that such findings are of no practical moment. The rate of mortality indicates a very strict selection. Notwithstanding this, the death rate from diabetes was fully 6 times the normal. As a general rule the companies declined cases with a history of sugar within 2 years of the application for insurance, unless there was proof that glycosuria had disappeared, while sugar found at the time of application was generally a bar to acceptance unless only one out of several specimens showed a trace, and there was no past history. In a company insuring underaverage lives, the mortality on a group where sugar was found in more than one specimen at the time of examination was fully 200%. The number of cases involving albumin, either with or without casts, was too small to be of any value.

In the case of one attack of gall-stones or hepatic colic, the mortality was about 130%, while in the case of 2 or more attacks at any time, it increased to 195%. The relative mortality among those who had one attack did not seem to be materially influenced by the time elapsed since the attack.

Where there was a history of blood spitting without a distinct history of tuberculosis of the lungs, there was a mortality of 151% where the history showed one attack within 5 years of the application for insurance, and of 131% where the history showed one attack between 5 and 10 years prior to the application. Here again it must be remembered that the group was very carefully selected.

A history of one attack of tuberculosis of glands, including scrofulous glands of the neck, within 10 years of the application for insurance, gave a mortality of 178%. Where the attack was more than 10 years prior to application, the mortality was 113%. The corresponding figures for tuberculosis of bone were 190% and 120%.

I shall pass by the results of the investigation regarding the excessive or free use of alcohol, because I am of the opinion that the experience prior to the adoption of prohibition differs from present day experience. I may, however, point out that where there was a history of former intemperate habits and of reformation without treatment, the mortality was 132%, and that where the applicants had taken some form of cure for alcoholic habits, and had been total abstainers thereafter, the mortality was about the same.

Purulent pleurisy showed a mortality of 158% where there had been one attack within 5 years of the application, and of 104% where there had been one attack more than 5 years prior to the application for insurance. The groups, however, were small. In the case of pleurisy other than purulent, the material was abundant, and showed a mortality ranging from 147% to 92%, according to the time elapsed between the attack and the application for insurance.

In a large group showing a history of acute

articular rheumatism the mortality ranged between 120% and 108% of the standard, depending upon the time elapsed between the last attack and the date of application for insurance. The death rate from organic diseases of the heart was markedly above the normal, especially at the younger ages at entry, while the deaths from acute articular rheumatism were 8 times the standard.

Where there was a history of fistula in ano within 5 years of the application for insurance, the death rate ranged from 120% to 136%. An investigation of the causes of death indicated that the belief that fistula is frequently an indication of tuberculous taint is well founded.

A history of 1 attack of gout within 10 years of the application gave a mortality of 172%, while a history of two or more attacks, the last within 5 years, gave a mortality of 190%.

In a group with a history of asthma within 5 years of the application, the mortality was 121%.

A history of one attack of appendicitis without operation showed a favorable mortality.

A spinal curvature, not tuberculous, showed a mortality of 170%.

Where there were 2 or more cases of cancer in the family record, the mortality was not unfavorable. As a matter of fact, it was only 79%. The group was a fairly large one.

A study of the effect of tuberculosis in the family record produced some interesting results. In considering these it must be remembered that life insurance companies have scrutinized with great care applications for insurance from men in this class. An unusually high standard of physical fitness has been required, and the experience is therefore much more favorable than would be found in a group of similar uninsured persons. I shall give you the results in only 2 classes. The first consists of those in which one brother or sister had tuberculosis. This was a very large group in which there were altogether 6317 actual deaths. I shall first show the mortality according to the age when insured, and the departure from the average weight.

WEIGHT

Age	−25 to −45 lb.	−5 to −20 lb.	Average to +20 lb.	+25 to +45 lb.
15 - 29	190	142	121	106
30 - 44	100	96	91	104
45 and over	75	74	87	113

It will be noticed that the mortality at the younger ages was high among men from 5 to 20 lb. below the average weight, and very high among those of lighter weight. Among the insured of average weight or overweight, the excess mortality at the younger ages is not great. Above age 35 the death of 1 brother or sister from consumption appears to have little effect. Among those accepted for insurance at ages 15-29 who were under the average weight, the deaths from tuberculosis of the lungs were over 48% of the total deaths in the group.

The group in which there was a family record showing that 1 parent had died from tuberculosis was also large. In this group there were 4405 deaths. The experience therein may be compared with that of the other group by means of the following table:

WEIGHT

Age	−25 to −45 lb.	−5 to −20 lb.	Average to −20 lb.	−25 to −45 lb.
15 - 29	127	124	105	114
30 - 44	107	91	88	100
45 and over	70	77	80	118

From this table it also appears that the mortality was high at the younger ages among those under the average weight; also that tuberculosis in 1 parent seems to be of comparatively little moment at the older ages. In this group the death rate from tuberculosis of the lungs was about the same as in the other group.

A study of the effect of height on mortality in these 2 groups showed results in agreement with those of the general investigation, namely, that tall underweight men at the younger ages at entry experienced a relatively higher mortality than short men, and that the men of medium height experienced a relatively lower mortality than the tall men.

Comparing the 2 tables, it will be noticed that they are generally consistent. The higher mortality shown in the groups from 25 to 45 lb. overweight may be attributed to weight. The striking thing to be noticed is that apparently tuberculosis in a brother or

sister is of more significance than tuberculosis in a parent.

A new general investigation is about to be undertaken. It will be along lines similar to the one which I have been discussing, and will cover the recent experience.

In 1923, the Joint Committee on Mortality of the Association of Life Insurance Medical Directors and of the Actuarial Society of America undertook to investigate the effect of blood pressure on mortality. While a few companies commenced to take the systolic pressure as early as 1906, the methods were crude and the readings were frequently unreliable. It was not until about the year 1911 that the systolic pressure was first taken by many companies, and it was not until the year 1918 that the companies generally took both systolic and diastolic pressures. The data included in the investigation is made up from the reports of medical examiners who were known at the home offices to be careful and capable of taking the blood pressure accurately. Approximately 707,000 cases comprising 653,500 men and 53,500 women entered into the investigation. In 697,000 cases the systolic pressure was taken by the auscultatory and 10,000 by the palpatory method. In approximately 500,000 cases the diastolic pressure was taken at the beginning of the fifth phase, and 207,000 cases at the beginning of the fourth phase. It is unnecessary to say to this body that the former is the point at which there is a cessation of all sound, and that the latter is the point where the last loud sound is heard.

The following table shows the average blood pressure for men:

Age	Systolic (Mm.)	Diastolic (Mm.)
20	120	79
25	121	80
30	122	81
35	123	82
40	125	83
45	127	84
50	129	85
55	131	86
60	134	87

These results do not differ materially from the average blood pressures which have been published by various writers. The systolic pressure was taken in all cases by the auscultatory method, but it does not appear in what proportion of cases the diastolic reading was taken at the fourth and what proportion was taken at the fifth phase.

The investigation showed that the blood pressure was affected by height and weight. Regarding the effect of height, 2 conclusions may be drawn. The first is that both the systolic and diastolic pressures increase as the height increases in each of the age groups, the increase being most marked at the younger ages and growing less as the age advances; the second is that the increase with age is greatest among the short men and becomes steadily less rapid as the height increases. The blood pressure also increases with increasing weight, the effect being proportionately a little greater at the older ages.

Any investigation of the effect of blood pressure upon mortality must take cognizance of the 3 factors involved, namely, the systolic, the diastolic and the pulse pressure. As each of these is related to the others the process becomes complicated. Instead of placing before you the results of the investigation, I shall give you in the words of the committee the conclusions which they drew therefrom.

(1) The mortality is lower than the average when the systolic or diastolic, taken by itself, is somewhat below the average, but no information is yet available regarding the effect of very low pressures. The average blood pressure does not therefore appear to be the point of lowest mortality.

(2) The good effect of a systolic or diastolic pressure slightly below the average is likely to be greater at the younger than at the older ages.

(3) The mortality increases rapidly with the increase in blood pressure over the average.

(4) Substantial departures from the average blood pressure are less significant in the case of pulse pressure than in the case of either systolic or diastolic pressure.

Dr. Oscar H. Rogers, Chief Medical Director of the New York Life Insurance Company, has rendered noteworthy service to the company with which he is connected and to all other life insurance companies in a series of investigations of the mortality of impaired

lives. These investigations have been made in collaboration with the Second Vice-President and Chief Actuary of the New York Life Insurance Company, Mr. Arthur Hunter. They deal with impairments which required an extra premium. One of these investigations dealt with albuminuria and glycosuria. The conclusions drawn therefrom were as follows:

(1) Traces of albumin recurring intermittently may generally be disregarded.

(2) A constant trace of albumin found during adolescence is relatively unimportant, but becomes a matter of considerable importance after the adolescent period has passed.

Albumin was regarded as intermittent if it was found in 2 out of 3 or 4 tests. A "trace" was regarded as approximately .05% and less than .10%; and .01% means one part in 10,000.

A trace of sugar found intermittently gave a mortality of 139%, while a moderate amount found intermittently gave a mortality of 165%. A constant trace of sugar found regularly gave a mortality of 198%, while a moderate amount found regularly gave a mortality of 360%. Sugar was regarded as "constant" if found in 2 out of 2, 3 out of 3, or 3 out of 4 tests, and more than a trace when found in 2 out of 3 tests. Less than about 1 gr. to the ounce was regarded as a trace, while a moderate amount was regarded as ranging between 1 gr. and about 4 gr. to the ounce.

Another investigation made by Dr. Rogers and Mr. Hunter involved the effect of heart murmurs with mitral regurgitation and functional heart murmurs. Where there was a history of mitral regurgitation without hypertrophy, the mortality was 188%. It was higher at the younger than at the older ages at entry; 42% of the deaths were from heart disease. The mortality was influenced by build. Where there was mitral regurgitation with hypertrophy the mortality was 246%. Here again it was found to be more serious at the younger than at the older ages at entry; 45% of the deaths were due to heart disease and the deaths from apoplexy and Bright's disease were distinctly above the normal. Cases diagnosed as mitral insufficiency, in which the murmur though constant was slight, and not transmitted, with no hypertrophy, no disturbance of rhythm or function, and with no history of rheumatism or other acute inflammatory ailment, gave a fairly satisfactory mortality. Cases diagnosed as mitral regurgitation, constant, transmitted toward the axilla and usually heard at the angle of the scapula, without hypertrophy, without any complications, and without any history of rheumatism or other acute inflammatory ailment, gave a mortality of 158%. Cases of undoubtedly mitral murmurs with no appreciable hypertrophy, but which showed some departure from the normal in the rate or rhythm of the pulse, in the blood pressure, or in the accentuation of the second sound, or in which there was a history of rheumatism or other acute inflammatory ailment, gave a mortality of 235%.

In cases of functional heart murmurs, the mortality was fairly favorable at ages under 40, and distinctly unfavorable at the older ages. Judging from the number of deaths from heart disease, however, it seems probable that functional heart murmurs are of some importance even at the younger ages, especially if the persons are engaged in hard physical labor. Possibly organic murmurs were not always recognized.

In the published transactions of the Association of Life Insurance Medical Directors there will be found the results of numerous investigations along similar lines, but a recitation thereof would unduly prolong this paper. Furthermore, if it is not already such, it lacks little of becoming a powerful anesthetic.

In my opening remarks I referred to the general esteem in which doctors are held and to the confidence placed in their ability. In the life insurance company with which I am connected, that esteem and confidence are so great that the by-laws of the company provide that no policy of insurance shall be written on an application not advised by the medical board without the joint concurrence of at least 3 officers of the company. I cannot read this by-law in any other way than that in the opinion of the board of directors the judgment of 1 medical man is worth at least that of 3 officers. In my long experi-

ence I have never known the officers to overrule the medical board on a purely medical question. It would seem that the judgment of a layman with respect to such questions as the effect of family history or build might be as good as that of a doctor, but even in such cases it takes the combined judgment of 3 laymen to outweigh the judgment of 1 doctor.

The duties of a medical director do not end with the acceptance or rejection of an application for insurance. He is required to pass upon all death claims so far as the medical proofs are concerned, and must make constant studies of the mortality experience of the company with which he is connected, and keep himself informed of all matters pertaining to vital statistics to the end that the great interests of the insuring public will be conserved.

It is difficult, if not impossible, to compare responsibilities. In a life insurance company there are those who are charged with the investment of funds. Others have the responsibility of seeing that the scientific principles underlying the business are observed. Others are charged with the duties incident to the maintenance of the agency staff in order that the public may be intelligently and honestly advised with respect to life insurance, while still others have the duty of coördinating all the departments of the business in order that it may be efficiently and economically conducted. I cannot say that any of these duties is more or less important than those resting upon the medical directors, but I can say that without the intelligence, and the zealous devotion to their duties, of the medical directors, no life insurance company can prosper. The cost of life insurance to the public is very largely dependent upon the work of the medical men at the home office. If in a particular company you find that the cost is relatively low, you may attribute it in large measure to the fact that there are on the home office staff men of the medical profession who have brought to the service of the company great natural talent, wide learning and much wisdom.

THE BARRAQUER CATARACT OPERATION; Moving Picture Demonstration

William McLean, M.D., F.A.C.S.,
New York

My purpose in presenting this subject is two-fold: first to show the possibilities of the motion picture as a means of medical teaching in ophthalmology; secondly, to show you my method of performing the Barraquer operation of phacoërisis.

The American College of Surgeons has formed a department for collection and dissemination of motion picture films as an aid in teaching the various operative procedures of surgery; to have a central bureau from which motion picture films, demonstrating operations, can be obtained as a loan by medical colleges, conventions and societies. The general plan of this work was first formulated and presented at the last Montreal meeting of the College, and at that meeting portions of this film were shown.

The "shooting" of a movie for general surgery offers many difficulties but such difficulties are multiplied when it comes to taking a picture of special operations such as we find in ophthalmology. Where the field is large and pauses can be made by the surgeon to allow time to film a particular feature, the task is less difficult. In an operation where the eyeball is opened extensively as in the cataract extraction, it is not advisable to permit interruptions, so I have worked straight through, from start to finish, compelling the camera operator to get the picture as best he might. I can think of no other operation where so much damage can be done in an instant of time by misdirected effort, as in the operation for cataract. In this operation nothing should be injected into the procedure that might disturb the tranquility of the patient's mind. Also, the field of operation is small and artificial lighting must be used. The fact that unseating of the lens, the principle step in the cataract operation, is carried on underneath the cornea offers another difficulty in the way of the camera recording a clear impression of the procedure.

After considerable thought and investigation, I decided that the camera best suited for this work would be one that could be held in the hand; which means that the camera must be mechanically actuated and not hand cranked, and that speed lenses are required.

The "setting up" of the camera, on a tripod or other base, after the patient is on the operating table offers a disturbing element to the patient's mind, yet, unless the patient should have vision so poor in each eye as to be unable to discover the presence of the camera and tripod already poised over the operating table, previous setting up should be done. The procedure I finally adopted was very simple. When all was in readiness, the photographer, with the camera in his hand, took his position on a stool close beside the table and about even with the patient's hips. In this position he was out of the way and yet the camera was almost in a vertical plane over the field of operation. The camera was held 3 feet from the field of operation. The source of illumination was a 500 watt projection lamp, banked with a reflector and prisms, in a housing planned to throw all the rays forward in a large bundle. This developed 750 to 1000 foot candles at the site of operation and offered excellent illumination for the operator without too much glare for the patient.

In "shooting" the picture for a demonstration operation, where an enucleated eye was held in a face mask, it was possible to have the camera 1 foot from the field, and for that work I used an F 1.8 lens. I also tried a 3½ inch F 3.3 telephoto lens fixed at 3 feet from the field. On account of magnification secured by the telephoto lens, the camera must be mounted to produce a picture of sufficient stability.

In 1922, I spent 3 weeks in Barcelona working with Dr. Barraquer and under his supervision developed a satisfactory technic. Dr. Barraquer told me that previous to my visit no American had done any operating with him, that many Europeans had worked with him but that Dr. Gallemaerts, of Brussels, was the only one to do more work there than myself.

In a few features this operation of Barraquer differs from the usual cataract operation and yet with exception of the manner of delivery of the lens, the other features can be adopted for other types of cataract operations. Fisher modified the Smith intracapsular operation by replacing the lid speculum with the Fisher lid hooks. Smith found difficulty with the so-called "squeezer patient", as the lid speculum does not prevent pressure being applied against the eyeball. He and others have sought to evade this danger by using an anesthetic to paralyze the orbicularis and recti muscles. Smith told me that he is seeking a paralyzing agent that will endure for 6 days. I have found introduction of the needle, in the von Lindt injections, to be quite painful. Others have reported distressing if not dangerous sequels following deep injections of the orbit. One operator told me that following a good cataract operation where he had used deep orbital injections, the patient complained of constant severe pain deep in the orbit and an enucleation finally had to be resorted to; whereupon it was found that a hematoma of the orbit caused the pain. The hematoma had probably been produced by puncture of a fairly large vessel in the orbit at the time of the deep injection. Barraquer uses the lid injections, and in doing the operation he employs the Desmarre's lid elevator held by the assistant's left hand to keep the upper lid out of the way. The lower lid is controlled by the thumb of the assistant's right hand. I have found that in using the Desmarre's lid elevator for the upper lid and the Fisher lower lid hook, both held by an assistant properly acquainted with the purposes of these instruments, the orbicularis could be held from every vestige of pressure on the eyeball, and the deep orbital and lid injections could be avoided.

You are all probably perfectly familiar with the steps of the operation so I will not go into detail but will briefly describe the stages as I am doing them:

(1) Preliminary preparation of the patient is the same as in other types of operation. The pupil should be dilated ad maximum.

(2) The lid speculum is not used, but the lids are held apart and away from the eyeball

by a Desmarre's upperlid retractor and a Fisher lower lid hook.

(3) The corneal incision is a little less than one-half the circumference and ends in a conjunctival flap above.

(4) A small triangular iridectomy is made, which is almost hidden beneath the overlapping limbus. Thus, the normal round pupil is undisturbed. Only where there is a large swollen lens, or where good pupil dilatation is not obtainable, is a full iridectomy made.

(5) The correct amount of vacuum being predetermined, the vacuum pump is started. With the vacuum guage registering the correct vacuum the tip of the erisiphake is adjusted against the anterior surface of the lens. As soon as the valve is opened by the thumb, and the lens is seen to be grasped by the tip of the ventouse, the operator immediately starts to rotate the lens out of the patellar fossa and the lens is delivered by the "tumbling" process.

(6) Two or 3 sutures of the very finest cotton (No. 150) are inserted in the conjunctival flap to hold the wound edges in thorough apposition.

(7) If the pupil is not in place, the cornea is gently stroked to replace the iris and, if necessary, the iris repositor is used in the anterior chamber to stroke the iris gently into place.

(8) One drop of a miotic is instilled in the conjunctival sac.

(9) Retractors are removed and an ointment applied to the margins of the lids.

(10) A light weight eye pad is applied to cover each eye and the eye operated on is protected by a perforated aluminum shield held in place by strips of adhesive.

Manipulation of the erisiphake is the only part of this operation that offers any serious difficulty. There is a certain delicacy of manipulation to be acquired in handling the erisiphake, before the operator may proceed with work on the living human eye. Unfortunately, manipulation of the erisiphake, or hand-piece, cannot be acquired by watching another do the operation. One must practice the manipulation in order to acquire its proper use. If the hand-piece is held properly, the thumb has complete control of the valve without in any way restricting the free movements of the hand.

In the first reel I will show a lay-out of the instruments, then 2 or 3 demonstrations of the manner of holding and operating the erisiphake, a "close up" of the technic of tumbling the lens, and the operation as done on 3 enucleated eyes in a face mask. The second reel will show the operation as done on 4 patients; I did not interrupt the operations after first starting, thus compelling the camera-man to get the film as best he could. Short lapses in the picture will, therefore, occur where the photographer had to rewind the camera.

Dr. John E. Weeks, in his "Report on Observations of Foreign Clinics", given at a meeting of the Eye Section of the New York Academy of Medicine, commented very favorably on the work he saw at Barcelona. The Section asked if I would report on the work I had done thus far. I gave a report on 40 consecutive operations, giving in detail a chart showing the age of the patient, type of cataract, result of the extraction, condition of the pupil after operation, and visual acuity result in each case. In that report of 40 cases my statistics showed a visual acuity result of 20/20 or better in 63%. My further experience of over 100 cases has evidently improved my technic, as in a summary of all my cases I am able to report 20/20 or better in 70.8%; while for 20/40 or better my results are 91.6%. These cases were from clinic and private practice, and some would not have been operated upon had we been looking for percentage statistics.

In some of my cases the operation was undertaken in an effort to improve the patient's ability to help himself, knowing that I could not have a perfect visual acuity result. For instance, a patient having myopia of 28 D., with all the changes that follow in the wake of a high myopia, opacities in a fluid vitreous and changes in the retina and choroid, developed a cataract in the only eye she was using. The cataract was very immature but vision was reduced to 2/200. I was asked by her oculist to operate. The lens was removed in its capsule easily and as a result her vision was improved to 20/200. In 11 cases the op-

eration was undertaken where it was known that other pathology than cataract existed, which would alter the final result. Eleven of the patients I operated on had been told by other oculists that operation was impossible in that stage; 3 had been told that the cataract was of a type, slowly progressive, but that operation probably could never be done.

In over one-half of the cases the diagnosis was that of immature cataract. The oldest patient was 88, and she had an uneventful recovery and with her glasses vision of 20/15-4 letters.

The 2 youngest were aged 24; one of these was a pugilist, the other had congenital cataract, the patient of another oculist who asked me to see what I could do with the Barraquer in that case.

The cry raised by the capsulotomy operator is that the vitreous loss is much greater in the intracapsular operation. In over 100 cases there were some in which I suspected fluid vitreous, such as the case with 28 Ds. of myopia, the pugilist with his history of trauma and the slit-lamp microscope study showing other pathology; also another case where the patient had previously lost an eye in a capsulotomy operation done by another man. In the case of high myopia the vision was improved to all we could expect; with the other 2 the visual acuity was excellent. There were 7 cases in which I had some loss of vitreous, and in 2 of these the type of operation had nothing to do with the loss as it was absolutely the fault of the patient. I do not believe there is any need of greater loss of vitreous in this operation than with a capsulotomy, and in the face of a fluid vitreous I believe that the Barraquer, where the lens is lifted out of the eye, is safer than any expression operation, either by capsulotomy or other intracapsular form.

Of my patients, 14 had cataracts in both eyes operable by the Barraquer method; and all were so well pleased with the results of operation on the first eye that they wanted the second eye treated similarly. Some oculists have warned against operating on the second eye, but I have not had any trouble from that procedure.

This operation has aroused interest all over Europe, many oculists have made pilgrimages to Barcelona to see the work of Barraquer, and some have stayed and worked with him. Most oculists in this country who are not doing the intracapsular operation admit that this operation seems far superior to the usual, old-time capsulotomy method, but say they are not doing sufficient cataract operating to trust themselves with removal of the lens in its capsule. In my opinion, that is a wrong deduction, for better judgment is required to know just when to stop stroking out cortical substance, when doing a capsulotomy operation, than to control an intracapsular operation. While I do not intend to minimize the obstacles in doing an intracapsular extraction by the Smith or expression method, it is chiefly necessary to know how to apply pressure to cause the lens to present. I have operated by the capsulotomy and the Smith-Fisher methods and I believe my results have been as good as are usually obtained, but, I prefer the Barraquer operation.

Conclusions

I believe the Barraquer method is superior to the capsulotomy operation in that it permits removal of the lens long before the cataract has become mature; thus avoiding long delay, with semiblindness, while awaiting for maturity. And, when the lens is removed, it is done completely, not leaving any fragments of capsule or lens substance to induce an iritis during the healing process. I believe the Barraquer is better than the Smith method because it is an intracapsular operation whereby the lens is lifted out of the eye without any pressure being exerted on the eyeball. Prof. Gallemaerts, of Brussels, commenting on this operation says: "The erisiphake of Barraquer does away with that pressure on the vitreous which is so brutal in the operation of Smith. The results give great satisfaction, no irritation, a black pupil, excellent vision, and above all no secondary cataract or needling to be reckoned with."

NASAL SURGERY IN HAY FEVER

Louis Weiss, M.D.,
Newark, N. J.

Hay-fever occurs frequently in the presence of nasal obstructions, and nasal surgery is indicated. The nature of the obstruction may vary, but the symptoms are similar. There may be present an hypertrophy of the mucous membrane, alone or in combination with the bony or cartilagenous structures; in the former case, removal of the redundant mucous membrane covering a turbinate, or a turbinotomy, will bring about the desired result; in the latter case, a turbinectomy, usually partial, will prove successful. Polyps, when present, must be removed completely. A submucous resection is necessary for removal of a deviated or hypertrophied septum. The result of nasal surgery should, to be effective, show a space which no amount of swelling of adjacent mucous membranes can bridge over.

Certain atmospheric conditions and airborne matter are said to be the exciting causes of the syndrome known as "hay-fever", in susceptible individuals. Persons with hypertrophied nasal mucous membranes and underlying structures are most often affected. We can not eliminate a single particle of the air, which may be a factor in the cause of hay-fever, but we can remove the site of its irritation in the nose by nasal surgery. The same air that may affect some people unfavorably is innocuous to others. The reason for this difference should be sought in the individual, not in the air. The repeated migrating of hay-fever sufferers in search of air or climate shows the futility of such endeavors alone, for any permanent relief.

Prophylaxis

People afflicted with hay-fever should keep out of draughts at all times, and avoid indoor crowded places. They should not let their feet get cold and wet. Cold baths that chill the body and congest the nasal mucous membranes should be supplanted by warm baths. The use of cold internally or externally induces and prolongs their hay-fever symptoms. Warmth tends to prevent these attacks and to promote normal bodily functions. Cold drinks should be replaced by warm drinks. Food should be thoroughly cooked and eaten while warm. Raw, cold foods are best left untouched by people with hay-fever tendencies. The kind and quantity of food ingested are often important. Food grown on the farm and composed largely of carbohydrates, is to be preferred to the dairy products and meats known as proteids. The former are easier to digest and assimilate, and cause less severe symptoms. Often the patient can best choose his or her own diet. Small amounts of food stimulate the normal functions of tissue cells; over-eating is depressing and causes dysfunction of cellular tissues.

For local use, prescribe cocain hydrochloride solution 1 to 4%, according to the severity of the symptoms; 10 drops should be used in each nostril 2 or more times daily until relieved. Cocain solution makes the mucous membrane less sensitive, causes a shrinkage, and thus gives temporary relief.

If hypertrophied and diseased tonsils or adenoids are present, they should be removed, to thwart their being a contributive factor in hay-fever, as they frequently are in other affections, and to prevent tonsillitis as a complication in proposed nasal surgery.

Treatment

In nasal surgery local anesthesia is generally used; 10% solution of cocain hydrochloride with adrenalin chloride solution (1:1000), as suggested by Fischer, of Philadelphia.

Determine by careful examination the nature of the nasal obstructions. The obstructions are usually in both nostrils, but only one nostril is operated upon at one time. If more than one turbinate is involved on the same side, the second turbinate is attended to at a later date. Judicious division of the work prevents shock. An interval of 2 weeks between operations is ample time for healing in most cases. Two or more operations may be necessary to remove all the obstructions in a given case.

In preparation for a submucous resection, a proper sized piece of cotton saturated with

the anesthetic solution is packed into each nostril in close contact with the septum. The usual hour is allowed for thorough anesthetizing. The nostril showing the septum convexity is the side through which I prefer to do the resection. With the point of a small scalpel, make an incision from the bridge to the floor of the nose, 2 mm. posterior to the mucocutaneous junction and parallel to it. Incise through the mucous membrane to the cartilage, with repeated, carefully guarded strokes. Separate the mucous membrane from the cartilage, with the mucoperichondrial elevator, a little beyond the convexity in all directions. Next, cut carefully through the cartilage with point of the scalpel to the mucous membrane of the other side of the septum. Introduce the elevator through the incised cartilage and push it gently between the concave surface and its lining mucous membrane, slowly effecting a separation. With an angular, narrow bladed nasal scissors cut the cartilage into strips of about ⅛ in. diameter. Remove these strips separately with an angular nasal biting forceps. Leave about ¼ in. width of cartilage in the bridge of the nose and a like dimension anterior to the incision for support; this will keep the shape of the nose intact. For removal of extreme deviations and thickenings of the septum, the biting forceps will be found efficient. With cotton-tipped probes dipped in sterile water, wipe when necessary the area of operation between the two layers of mucous membrane to enable you to see and remove every undesirable portion. Do not use dry cotton-tipped probes in the operated area; some of the cotton may be caught on the sharp points of the cartilage or bone remaining and cause considerable annoyance to the patient and delay healing. Occasionally during the operation let the mucous membrane partitions come in contact to see if the obstruction has been eliminated. Sometimes the mucous membrane is torn along the base of the septum. That is not alarming; it is beneficial on account of the drainage it provides, thereby preventing a hematoma between the mucous layers. In some cases, to secure adequate drainage, puncture the lowermost part of the membrane on the deviated side posteriorly, with a sharp pointed long handled scalpel. In another type of case the membranous layers may be kept apart by the broad base of the septum. With a sharp, angular nasal scissors sever the convex half of the membranous partition along its base on the floor of the nose. The severed membrane attaches itself readily to its fellow to form a membranous septum. Healing at the base is by granulation. Pack carefully with carbozine gauze the one nostril through which the operation took place.

A turbinate extending into the concavity or overlapping the convexity of a deviated septum, should receive attention before a submucous resection is attempted.

Polyps are taken out with a nasal snare and an angular nasal biting forceps, with the proper precautions.

Hypertrophied turbinates may be easily removed by angular turbinate scissors after proper cocainization.

Offending middle turbinates and other minor obstructions are removed in toto.

Inoculations against hay-fever should be preceded by removal of nasal obstructions.

ABERRANT PANCREAS IN THE STOMACH WALL

William Wheeler Cox, M.D., F.A.C.S.

Montclair, N. J.

(Read at Clinical Conference of the Mountainside Hospital, October 9, 1928)

As early as 1859 Klob (Zeitschrift der Gesselschaft der Aerzte zu Wien) described misplaced islets of pancreatic tissue in various parts of the gastro-intestinal tract, the stomach, jejunum, ileum, etc., and since then a list of some 89 cases has been found and reported by Warthin and others. Due to the increasing number of cases known to exist, with an enlarged knowledge of the pathologic possibilities, this subject has become one of more than academic interest, with practical importance in that there may be an independent function of the misplaced pancreatic tissue; it may be the cause of an obstruction as obtained in this case; it may be the seat of

malignancy with an attendant obstruction; it may be the seat of an ulcer following chemical irritation, or may be merely inflamed or infected and result in hernia, diverticuli, tumors or intussusception. One writer believes that it is a causal agent in pyloric stenosis and we know that the condition does cause death in many cases. As so little attention has been called to this condition, I trust that a report of my case, which is included in this paper, will be a contribution to the literature on this subject.

Review of the literature discloses some excellent studies to determine the embryology, pathology and treatment of this condition. It is remarkable that Klob and F. A. Zenker, 2/5 of a century ago, described this condition, and it was not until 40 years later that the subject was again revived by A. S. Warthin, Arthur Benjamin and E. J. Horgan. The number of cases then reported, with location, was as follows:

	Warthin	Horgan
Wall of stomach	14	7
Wall of duodenum	12	3
Wall of jejunum	15	13
Wall of ileum	1	1
Wall of intestine (not definite)	1	1
Wall of diverticulum of the stomach	1	
Wall of diverticulum of the jejunum	1	1
Wall of diverticulum of the ileum	4	4
Wall of diverticulum of the duodenum		2
Meckel's diverticulum	1	
Umbilical fistula	1	
Messenteric fat	1	
Omentem	1	
Splenic capsule		1

Since the above collection, in 1904, 9 others have been recorded, including 1 of pancreas in the gall-bladder. It will be seen from the above series that the greatest number of cases has been found in the jejunum; almost as many cases have occurred in the stomach wall; and a close third is in the wall of the duodenum. The preponderance of cases in this locality and embryologic development support the belief of Warthin and others that the accessory pancreas is formed by lateral budding of the rudimentary ducts as they penetrate the intestinal wall, and the mass of tissue thus formed is snared off, as it were, by longitudinal growth of intestinal tissue, either upward or downward.

Case Report

Jacob W., aged 51, Russian Jew, married, applied to the out-patient department of the Mountainside Hospital, Montclair, complaining of lack of appetite, nausea, vomiting, constipation, loss in weight 20 lb. and a rather severe epigastric pain that came on at frequent and irregular intervals. He had the usual children's diseases and a double inguinal hernia 9 years ago, but no other serious illness until the present condition. For the past 2 years appetite has been poor, could not sleep, and his weight has decreased; has never been jaundiced. The genito-urinary function has been normal; his habits have been good, with a moderate use of tobacco and alcohol; he denies a venereal infection.

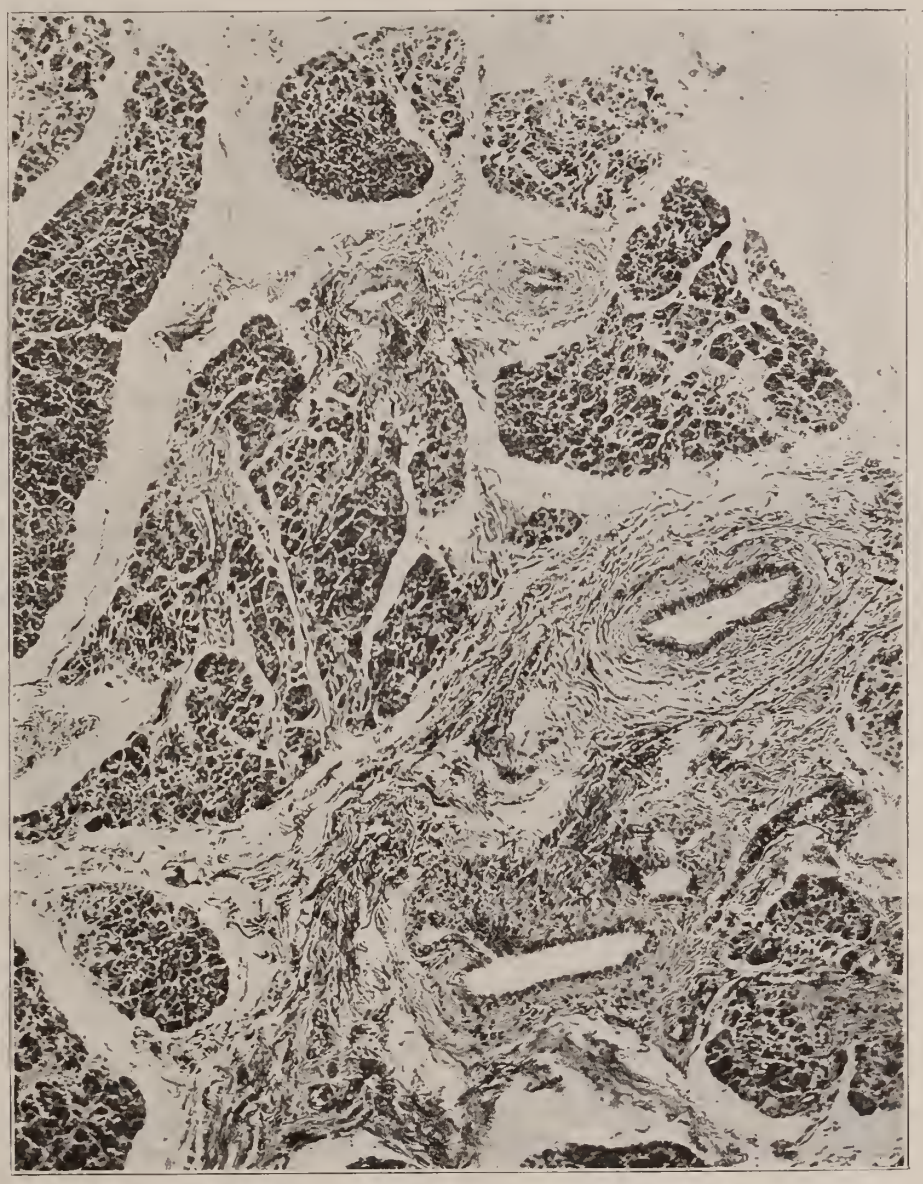
First noticed that he had symptoms of indigestion which caused distress soon after meals, eructations of gas and at times severe pain in the left epigastrium. The pain frequently came during the night, causing him to lose sleep. There was an increasing general weakness; times when he would feel somewhat better only to relapse into the chronic condition in which he came to the hospital. After several visits to the out-patient department, the attending surgeon advised admission to the hospital for further observation and treatment.

Physical examination was negative in most respects. The abdomen was of the scaphoid type and there was no visible or palpable evidence of mass; however, on palpation of the epigastrium in midline, high up, there was a slight tenderness; also a slight tenderness in the right hypochondriac region consistent with gall-bladder tenderness; but no evidence of rigidity or masses throughout the abdomen. Gastric analysis showed reduced amount hydrochloric acid.

The x-ray films bore out the fluoroscopic findings; the cap was irregular, showing a slight notching on lesser curvature, suggesting an ulcer or some other pathologic condition at this site. The films showed marked ptosis of stomach (there was a very small 6-hour residue), and x-ray diagnosis was "duodenal ulcer without obstruction". Later x-ray examinations, with the dye test—after 19 hours—revealed a rather large gall-bladder

with concentration shadows, suggesting the presence of stones.

The conditions considered were duodenal ulcer, chronic cholecystitis, with or without stones, chronic appendicitis with gastric reflex symptoms. It was decided, about 1 week after patient was admitted to the hospital, that there was sufficient evidence to make an exploratory incision; which was done through the right rectus muscle, high up, under gas-oxygen anesthesia. The appendix was found to be slightly adherent at the base and somewhat injected, but fairly well within normal limits. The gall-bladder had several rather large adhesions at the base attached to the duodenum, which were divided with the hope that it would relieve any possible pain from tension on this organ. A blue gall-bladder emptied easily and did not contain stones, or suggest any active inflammation. Around the pyloris, however, there were several adhesions. There was a mass, the size of one's thumb-nail, 1.5



Pathologic section described.

cm. in diameter, a section of which was removed for biopsy, incorporated within the stomach wall about ½ in. proximal to pyloric ring on the anterior surface.

Patency of the pyloris seemed very much reduced and feeling that we were dealing with rather a definite mass that probably would be explained by ulcer, it was deemed advisable to do a posterior gastro-enterostomy to overcome the apparent obstruction, and this was performed in the usual manner. Patient made a normal recovery and was discharged from the hospital 17 days after operation, healed and in good condition.

The microscopic examination was made from the usual stained and mounted specimen taken from a gross section 1 cm. in diameter, nodular and fairly hard in consistency. There were many alveoli of pancreas, no usual interlobular connective tissue, but muscle tissue taking its place; also a rather slight increase in interlobular ducts, and a few islets seen. No zymogen staining was done to determine function.

The pathologist's diagnosis was aberrant pancreas of the stomach wall.

After making several visits to the Follow-Up Clinic, patient was referred to the Gastro-Enterology Clinic, where he has been followed from that time and is considered decidedly improved. He has a few indefinite symptoms, but has apparently been very much benefited by the operation, and has resumed his full occupation.

Conclusions

(1) Aberrant pancreas is occasionally found in the gastro-intestinal tract but is usually overlooked because no biopsy is made and the condition passes for indurated ulcer or other pathology.

(2) The aberrant pancreas probably functions the same as normal pancreas.

(3) The aberrant pancreas is also subject to the same changes, pathologically, as the normal pancreas.

(4) The condition is fatal when it takes on inflammatory changes or causes diverticuli and results in a spread of the infection, or when it causes an overgrowth in the alimentary tract and thus induces obstruction.

(5) Postmortem sections from congenital pyloric stenosis cases might yield a high percentage of aberrant pancreas as the cause of this common condition.

REPORT OF INTERESTING SURGICAL CASES

Albert S. Harden, M.D., F.A.C.S.,
Newark, N. J.

Visiting Gynecologist, St. Michael's; Associate Surgeon, City; Adjunct Surgeon, St. James, St. Barnabas, Presbyterian Hospitals; Consulting Gynecologist, Soho Isolation Hospital.

In presenting to you a rather sketchy résumé of an average 3 months' service at the Newark City Hospital, it is with the desire to emphasize the great quantity and variety of clinical material the medical men of this vicinity are most cordially invited to see. Your presence during ward rounds or at operations would be most welcome. In this invitation I feel sure I am voicing the opinion of the entire staff.

During the months of October, November and December, our service admitted 151 patients, of whom 104 were operated upon. There were 8 deaths, the causes of which follow: 1 carcinoma of cecum at ileocecal juncture, intestinal obstruction of 10 days' duration; 1 carcinoma of cecum at hepatic flexure, intestinal obstruction of 3 days' duration; 3 ruptured appendices, diffused peritonitis; 1 partial gastrectomy, recurrent gastric ulcer, gastro-enterostomy, undoing anastamosis; 1 acute cholecystitis, pancreatitis with diffused peritonitis; 1 gun-shot wound of abdomen involving liver, stomach, intestines and kidney.

Besides these operative deaths we had 4 others of patients practically moribund on admission. One man with a stab-wound refused operative treatment, dying from diffused peritonitis following intestinal perforations, and the other 3 deaths resulting from: acute sepsis following a parrot bite on index finger; fracture of skull, automobile accident; crushing injury of abdomen by automobile.

The following were our admission diagnoses:

8 Acute suppurative appendicitis
20 Acute catarrhal appendicitis
6 Subacute appendicitis
24 Chronic appendicitis
24 Fractures
10 Inguinal hernias; 3 being incarcerated, 8 strangulated
1 Ventral hernia
5 Osteomyelitis; 1 acute
4 Ulcers of duodenum
2 Ulcers gastric
4 Perforating wounds of abdomen; 2 by bullet, 2 by knife
3 Postoperative adhesions
2 Laceration of tendons
3 Acute adenitis
2 Empyema
2 Avulsion of skin
9 Cellulitis
1 Breast abscess
21 Observation or minor injuries

Operations were as follows:

Appendectomies	58
Herniotomies	11
Sequestrectomies	5
Gastro-enterostomies	3
Partial gastrectomy	1
Exploratory laparotomies	3
Adhesions, laparotomy	3
Tenorraphies	2
Adenectomies	3
Thorocotomies	2
Thiersch grafting	2
Open reduction of fractures	5
Multiple incisions, cellulitis	44
Jejunostomies	2

Our greatest number of cases was in the appendicitis group, as were also our deaths, and all of these deaths were in patients who might have been saved if admitted sooner to the hospital. Although our large foreign population, with a known aversion to hospitals, makes it very difficult at times to secure consent to operate, the fact remains that in numerous instances the attending physician or surgeon is at fault in procrastinating. Without wishing to appear elementary or pedagogic, I should like to emphasize a few points relative to this common abdominal condition.

To my mind, appendicitis is always a surgical condition, fraught with great danger if not recognized early, or if, on being recognized, is treated medically. In diagnosing appendicitis the following "dont's" may be of some assistance.

Don't base too much reliance on blood counts. While it is true that a high count with a correspondingly high polymorphonuclear percentage is confirmatory, a low count does not rule out even an acute suppurative or gangrenous lesion. I am rather skeptical of counts of 20,000 or over and am inclined to believe I then have some other lesion, probably a pneumonic process.

Don't put too much faith in the old "3 cardinal symptoms" referred to in the textbooks; pain, vomiting and rigidity. Some people have a naturally tense abdominal wall, others are so flaccid that it would be impossible for the muscles to become rigid. Too great an effort upon the part of the examiner may prevent the rigidity by arousing apprehension. I have found that in placing the middle finger of my left hand over McBurney's point, at right angles and perpendicular, then striking it with a quick, sharp blow of the same finger of the other hand, I am able to elicit both point-tenderness and rebound-tenderness and at the same time am able to feel any resistance or rigidity. I consider this of great diagnostic importance. Nausea and vomiting may or may not occur; it is not a constant symptom. Pain is always present to a greater or less degree, depending upon the type of individual. It is rather characteristic and is best described as "green-apple" cramps which gradually center in the right inguinal region.

Don't give physics unless you have ruled out appendicitis; they only tend to aggravate the condition. I have had the experience on more than one occasion of mopping castor oil out of the peritoneal cavity while operating upon a ruptured appendix. Morphin is mentioned only to be condemned; as is also the ice-bag. Both relieve pain, mask symptoms, and give a false sense of security. If you must use them, be sure first of your diagnosis and of consent for operation. In children, rule out pneumonia. At times that is very baffling; especially with central pneumonias.

Hernia

A condition which has of late years become important in the medicolegal field because of

the Workman's Compensation Act, is the so-called "traumatic hernia". A traumatic hernia, of either the inguinal or femoral type, that will fulfill all of the 5 points required by the Act, I have yet to see. I would like, however, to call your attention to a type of potential hernia which is very apt to cause litigation; I refer to those with enlarged inguinal rings but containing no demonstrable sac. A considerable percentage of patients coming to the City Hospital with hernia of one side have an enlarged ring upon the opposite side. It is my opinion that these cases only need the proper strain to develop a true hernia and that the same condition existed upon the other, or actual hernial, side. It has been my practice, in such cases, to do a simple transplantation of the cord after repair of the true hernia, thereby obviating a second operation at a later date. While I admit that some good men disagree with this opinion, we must be governed by our own experiences and I have had patients return later for repair of the potential side.

One word regarding incarcerated hernias: it has been my experience that if the patient is unable to reduce the hernia himself, taxis upon my part will probably do more damage than good. I, therefore, place him in the Trendelenberg position and apply a hot water bag over the hernia, and if it does not reduce within a reasonable length of time I consider it irreducible and recommend immediate operative measures; with the comfortable feeling that I have not injured the bowel.

Perforating Wounds of Abdomen

All perforating wounds of the abdomen demand immediate operation, whether symptoms indicate a perforated viscus or not, regardless of the so-called symptoms of shock. No harm can be done in a rapid exploration of the abdomen. On the other hand, most valuable time is wasted if we await for signs of perforation; in other words if we await peritonitis. Shock, in these cases, is in my opinion hemorrhage and the only way to stop bleeding is to tie off the bleeding vessel. The 2 cases I am now reporting bear out this contention. The first patient was stabbed in the right side, in the mid-nipple line, at about 4 finger breadths above the umbilicus. General condition was good; no evidence of any visceral perforation. As the man had been drinking he refused any treatment. One hour later he complained of pain in the upper abdomen and consented to exploration. Surgically extending the stab wound both upward and downward, we immediately encountered free blood. As the wound was over the liver region this organ was explored and, much to our amazement, we found a knife blade 4 in. long embedded in the right lobe of his liver. The blade was removed and liver sutured by 2 sweeping sutures of cat-gut, a drain inserted, and the abdomen closed. With the exception of a few days when he drained a small amount of bile, he made an uninterrupted recovery. The second case was a gun-shot wound of the abdomen on the right side at about the fifth interspace, 1 finger breadth from the sternum; with also a wound in left hand and arm. This man was in severe so-called shock, and was immediately sent to the operating room. On account of the high point of entry, it was thought that he might have had an injury to his lung or diaphragm, so the incision was started from the point of entry and continued in a downward direction. No evidence of pleural perforation being found, the abdomen was opened and free blood was encountered. The incision was further enlarged. A perforation of the gutter type was found at the lesser curvature. This was rapidly repaired by purse string and imbrication. A rapid evisceration of the intestines to the right, and an inspection, revealed no perforations, but at the beginning of the jejunum there was a moderately large hematoma between the leaves of the mesentery. Thinking there might be a perforation in the lesser cavity, this was opened through the gastrocolic omentum. No bleeding being found, it was closed as was the abdomen. Patient returned to bed in better condition than at beginning of operation. Convalescence was rather stormy, but here he is. A radiogram taken later showed the bullet at the level of the fourth lumbar vertebra. He still has the bullet and nothing further will be attempted unless he develops symptoms. The remarkable thing about his case is the course of the bullet, with only this one per-

foration, which would have been sufficient to cause a fatal termination had we waited for his recovery from shock.

Ruptured Gastric and Duodenal Ulcers

These conditions are abdominal tragedies, as much depends upon early recognition and early operative intervention. Time is a vital element in prognosis. While it is true that some cases have recovered after the lapse of 48 hours, the consensus of opinion is that the first 8 hours offer the most favorable prognosis, and that after this period the prognosis becomes progressively and rapidly more grave. Such symptoms as absence of liver dulness, collapse, board-like rigidity of upper abdomen, and past history of ulcer are, at times, conspicuous by their absence. Great stress has been placed upon the disinclination of the patient to assume any position except the dorsal. This, too, is not always constant and in my opinion depends upon duration of the rupture, as do all of the symptoms. It is a curious fact that in a large percentage of cases we are able to obtain a history of a rather hearty meal, then a sharp stabbing pain in the upper abdomen with or without vomiting. Later, a rectal examination will show exquisite pain in the right iliac fossa, due to the gastric contents draining into the most dependent portion of the right gutter. A mass may even be felt at times. Of late, if I am able to see the patient soon enough, that is before a lapse of the 8 hour period, I have been doing a partial block of the duodenum by taking a wide mattress suture, inverting the perforation, and doing a posterior gastro-enterostomy as recommended by Walton. While it is true we are working in an inflamed area, it is a chemical rather than a bacterial peritonitis. If we are able to perform the 2 operations at the same time, subsequent operative measures are unnecessary, while if we are only able to close the perforation we are faced with the prospect of further surgery at a later date. I think it is now an acknowledged fact that in fully 95% of cases posterior gastro-enterostomy is a cure for duodenal ulcers. As to partial gastrectomies for chronic gastric ulcers, I feel that is much too radical. While in Europe 2 years ago, I saw a large number of these operations, and the medical men were very much opposed to the procedure because of the achalia gastrica, and saying they were not sure that it would not cause pernicious anemia.

Osteomyelitis

Chronic osteomyelitis is one of the most discouraging conditions we have to deal with and I wish to decry the common method of curetting because it simply spreads the infection. A wide excision of bone, working from the healthy toward the infected tissue, and an early application of Dakin's solution are at present the best methods we have been able to find, although our results are far from perfect. The different dyes do not appear to work very well. I show you 1 case that has been operated upon 22 times, and this is not unusual for I have seen many similar cases.

THE CLIQUE

What is the Clique? 'Tis those who attend
All of the meetings, on whom we depend.
They never are absent unless they are sick—
These are the ones the grouch calls "The Clique".

These are the ones who are never behind with their dues,
Who come to the meetings and have their own views.
They'll serve on committees and never say die;
"The Clique" are the ones that always "get by".

We all should be proud of members like these—
You can call them "The Clique" or whatever you please.
They never attempt any duties to shirk—
These are "The Clique" that do most of the work.

But there are some people who always find fault,
And most of this kind are not worth their salt.
They like to start trouble, they seldom will stick;
They like to put all the work on "The Clique".

—(Bull. A. M. A., 18:376, June 15, 1923)

ANNUAL REPORT OF THE TREASURER, 1929

A.

PERMANENT FUND

DR.

June 1, 1928—	
From "Capital Account"	
2 M 1st Liberty Loan 3½ % Bonds	$2000.00
4 M 4th Liberty Loan 4¼ % Bonds	4000.00
August 31—	
From "General Account"	
1 M Chicago & Alton 3½ % Bond	786.50
Cash	2000.00
	$8786.50

CR.

May 31, 1929—	
2 M 1st Liberty Loan 3½ % Bonds	$2000.00
4 M 4th Liberty Loan 4¼ % Bonds	4000.00
1 M Chicago & Alton 3½ % Bonds	786.50
1 Mortgage Certificate, Investors Title and Mortgage Guarantee Company	2000.00
	$8786.50

B.

GENERAL ACCOUNT

RECEIPTS

Balance, June 1, 1928		$18,576.60
Assessments—		
Atlantic	$1250	
Bergen	1700	
Burlington	465	
Camden	1280	
Cape May	200	
Cumberland	450	
Essex	7055	
Gloucester	320	
Hudson	4250	
Hunterdon	260	
Mercer	1420	
Middlesex	1000	
Monmouth	880	
Morris	840	
Ocean	190	
Passaic	1990	
Salem	160	
Somerset	390	
Sussex	190	
Union	2015	
Warren	270	
		26,575.00
Publication Committee		8,152.06
Arrangements Committee		40.48
Health Examination Charts sold		4.35
Interest		740.28
		$54,088.77

PAYMENTS

For Publication Committee		$12,820.89
" Welfare Committee		748.45
" Credentials Committee		324.61
" By-Laws Committee		84.50
" Health Insurance Committee		30.00
" Arrangements Committee		77.84
" Board of Trustees		3.50
" Executive Office:		
Salaries	$13,000.00	
Travel	1,733.68	
Office expenses	1,997.08	16,730.76
" Treasurer's Office		58.00
" Recording Secretary:		
Salary	950.00	
Office expenses	1,288.05	2,238.05
" Expenses of Delegates to A. M. A.		313.50
" Legal Services		708.46
" Printing & Stationery		1,463.28
" For Tri-State Conference		144.40
" County Secretaries' Meeting		99.30
" Cataloguing Services		39.00
" Error in printing bill, 1928		20.00
Transferred to Permanent Fund:		
C. & A. Bond	786.50	
Cash	2,000.00	2,786.50
Balance, May 31, 1929		15,397.73
		$54,088.77

C.

RECONCILLIATION WITH BUDGET

Expected Income	$35,000.00
Actual Income	35,512.17
Appropriations	37,350.00
Expenditures	35,904.54
Budget Surplus	1,957.63
Actual Net Deficit	391.37
Budget Balance to 1930	231.27

(Cash Balance, less 7/12 of Assessment)

E. J. Marsh,
Treasurer.

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE:
CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:
HENRY O. REIK, M.D., F.A.C.S., Apartment 22 Grammercy Court, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

REMEMBER THE CONVENTION

When this issue of the Journal reaches its readers the Annual Convention of the Medical Society of New Jersey will be almost at hand. It is hoped that you are fully prepared for this event, that you have long ago planned to put all work aside for those days—June 12-15—and to join your professional confréres in 4 days of pleasant association. The "program" was published in the May Journal, and if you have not yet studied it do so now, in order that you may attend the meetings ready to take an active and intelligent part in the proceedings.

These annual meetings are practically the only occasions when you may meet fellow practitioners from all parts of the state, so the social features have not been overlooked; there will be abundant opportunity for reviving old friendships, for making new acquaintances, for enjoying that peculiarly agreeable fellowship that exists among physicians.

And furthermore, do not forget that provision is now made for all members of a doctor's family to feel themselves a part of the convention. The wife, mother or daughter is, or should be, a member of the woman's auxiliary to your county medical society; and as such she will want to participate in the sessions of the state society auxiliary which is meeting at the same time at Hotel Chalfonte —just across the street from Haddon Hall. Younger members of the family are included in the provisions made for entertainment, and at Atlantic City can find plenty of opportunity for amusement or study while the elders are engaged at the scientific or business meetings.

Attend the Atlantic City convention this month! And, take the family along!

SPECIAL BUSINESS FOR CONSIDERATION

That you may not neglect the important duty, and the privilege, of active participation in decision of the many questions now confronting the state society, let us once again remind you of some of these matters.

What amounts to an entirely new Constitution and By-Laws is to be enacted; as published in the April Journal it is quite properly described as a "revision" of the existing rules but the revision is so complete and comprehensive as to make practically a new document. The proposed changes are mostly essential, and all are progressive and forward looking.

The presessional report of the Executive Secretary sets forth a number of questions upon which you must have an opinion and about which you should declare yourself: Does the Journal give you satisfaction, or, have you a suggestion for its improvement? Do you wish the public educational program

continued and expanded? Will you aid in furtherance of the Antidiphtheria Campaign, and will you help to improve the status of public school health work? Are you in favor of investigating the charges of "ambulance chasing", "fee-splitting" and other unprofessional conduct, with a view to clearing our organization of any association with such abominations? Shall we undertake through the county societies to check the recurrent evil of newspaper advertising of nostrums and quacks? Are you interested in provision for postgraduate lecture and clinic courses delivered at centers near your own home and at a nominal cost?

CONGRESSIONAL BILLS

In his report to the House of Delegates, the Executive Secretary will direct attention to several items of national legislation now pending at Washington. The proposition to reënact the Sheppard-Towner Law, and the proposed amendment to the Harrison Narcotic Act, referred to in his presessional report (May Journal, page 425), should receive your careful consideration. Since that report was written, another matter of some import has been made public; i.e. the Tariff Revision Act contains a clause which provides for a marked increase in the tariff on imported surgical instruments. Without waiting for action by either the state or national association, since prompt action seemed advisable, we filed with both United States Senators and all 12 Congressional Representatives from New Jersey, a protest against any higher tariff charge upon instruments; stating that the contemplated increase would be "an unnecessary and unjust tax upon the sick and afflicted".

When the last Congress adjourned, on March 4, 1929, the pending amendments to the Sheppard-Towner law, and the Newton substitute therefor, were all dead in committee. In consequence, the present law has a life expectancy of only a few more days; expiring by limitation on June 30, 1929. The special session of Congress called by President Hoover to consider farm relief and tariff revision had scarcely gotten under way before 3 new "Sheppard-Towner" Bills were introduced: Senator Jones presented a Bill (S. 255) which practically reënacts the Sheppard-Towner Act save that the time limit is removed and the law would acquire permanency. Mr. Cooper, of Ohio, introduced in the House of Representatives a duplicate (H. R. 1195) of the Jones measure; so that, we suppose, it will be heard of now as the Jones-Cooper Act. One week later, Representative Goodwin offered an amendment (H. R. 2039) to the present Sheppard-Towner law designed to extend its life for another period of 5 years.

The medical profession should use its best efforts to prevent extension or reënactment of this law, and for the following reasons: (1) As pointed out and condemned by President Coolidge, this law is a flagrant invasion of states' rights and a dangerous precedent in the application of national funds to purely local problems. (2) The direction and control of a scientific, medical problem is placed in the hands of an untrained (medically) layman; is placed in the Department of Labor instead of under the U. S. Public Health Service. (3) After 7 years of existence, and with the expenditure of more than $7,000,000 from the National Treasury, the law has accomplished exactly nothing in line with its alleged purpose and intent. (4) Because this is another, and an advanced, step toward lay control of professional work—of laymen meddling with problems about which they know little or nothing. In progressive states, among which New Jersey stands forth as a shining example, better provision for maternity and infancy welfare work was previously made through the Health Department than has been given since the national "dole" was offered.

We sympathize, always, with lay efforts to better health conditions and we have repeatedly urged coöperation of the profession and lay organizations, but we insist that application of public funds to the solution of medical problems shall be under the direction and control of trained medical experts.

Collateral Medical Reading

THE CONQUEST OF LIFE

by

Serge Voronoff, M.D.,

Translated by G. Gibier Rambaud, M.D.

(Reviewed by the Editor)

It is not surprising that the "average man and woman" should respond to the gorgeous red jacket of this American edition, with its attention-fixing blurb — "Life can be prolonged; Sex intensified, and Death delayed"; the text should, indeed, "pulse with human values" if it lives up to that enticing advertisement.

To begin with, Voronoff explains the characteristic changes that take place in all vital organs of the body, whereby cells of special function are encroached upon, displaced or replaced, by connective tissue cellular tissues incapable of carrying on such special functions, and, consequently, causing disorganization, old age, and finally death. The inferior, supporting or binding-material cells are of simple character and more hardy, they multiply rapidly, and in the course of time overwhelm the more delicate, highly differentiated, special cells; so that anarchy comes to reign supreme. The higher in the scale of special functions an organ may be placed, the more delicate will be its differential cells.

The glands of internal secretion have each their own particular function but also they have a harmony of action with and reaction upon each other that is essential to physical development and normal life of the whole being. To what extent one is more important than another may be measured to a certain degree by the importance to the life function it happens to serve. Voronoff believes that Leydig's interstitial cells of the seminiferous tubules of the testicles are more important to life than any or all of the others, not alone because they are essential to procreation but because their secretion dominates that of all other organs of the body.

"In a single organ Nature has united the source of life of the individual and of the species. * * * Removal of these glands reacts as much on the brain as on the heart, the muscles, the bones and all the other organs. The moral and physical energies both diminish, the peculiarly masculine qualities fade out of existence, youth disappears. * * * In the manifestation of his intellectual and physical qualities, which differ according to the individual, man depends to a great extent on his interstitial glands and on their greater or lesser activity, which has a direct repercussion on all the organs in stimulating their functions. Unfortunately, this activity diminishes progressively with advancing age. It is at its highest during youth and adult age, at the moment when our organism attains its greatest strength and energy. Then activity begins to wane, and, at last definitely ceases. The diminution of activity corresponds to old age, its total disappearance to senility."

Upon this basis, the question naturally arises: "Is it possible to find a remedy for old age resulting from atrophy of the *noble cell* that has been replaced by a *deficient and indifferently evolved cell?* Are we able to at least slow down and delay the abasement of the most precious elements of our organism, and thus prolong our youth, shorten the period of old age and postpone the advent of death?"

Voronoff believes this question may be answered affirmatively. "We cannot avoid death, but we can nevertheless stave it off to the extreme limit of the possible; to do this, however, we must suppress old age, in much the same way as we can cure a disease. By the grafting of interstitial glands, to which may be added, according to individual indications, that of the thyroid gland and of the pituitary body, we may be saved from old age and we can be given the joy of dying young at an age which is not at present reached even by very old men."

Approximately two-thirds of the book is devoted to recording experimental work upon animals, and deductions from this and from the results of gland grafting upon human beings. Of course the number of such operations performed is yet too small and the period of time covered too short to permit of definite conclusions regarding the prospective application and efficacy of this method of prolonging life or postponing the advent of senility. Voronoff makes no exaggerated claims in this text and we think those medical writers who have criticized him must have been influenced rather by the newspaper publicity given the subject than by the author's own presentation.

This book was intended for the laity but it presents the subject so well, scientifically yet stripped of technicalities, that it may be commended to the average physician, leaving the surgeons or consultants who may need to know more of the technical detail to consult scientific papers published in relation to this problem. To most of us the author's conclusions will be interesting as expressive of his hopes and those of humanity in general:

"We have a horror of decrepitude, of the infirmities of old age. Before reaching it we have all tasted the joys which an active life, overflowing energy and the intense ardor of our sentiments procured us in our youth.

Now, just at the period when acquired experience permits us to discern the mistakes we made and the acts which time has justified, just at the moment when our minds are ripe for great and valuable work, our capacity for labor abandons us. Memory weakens, thought becomes inactive, all effort becomes a hardship.

We grow old too soon; we die before we have accomplished our task.

To give new energy to the men whose value has grown with age, whose minds have become rich in accumulated knowledge; whose souls have been mellowed by contact with all the sufferings felt or witnessed during their long existences, to render them apt for productive labor, is accomplishing a work of social usefulness; it is contributing to the progress of humanity.

Those who, in the grafting of the interstitial gland, which intensifies *all our energies*, see only a renewed source of certain enjoyments which end with age, have seen only the minor side of the problem. The question has a broader and higher application.

The grafting of this gland will contribute not only to the conservation of the human race and of the races of animals the lives of which we have so much interest in intensifying, but also to the permanence of our intellectual capacities and our aptitude for labor. The ideal toward which all our efforts are tending is to preserve life with the plentitude of its physical and intellectual manifestations, to abridge the duration of old age, to put off Death to the last limit—to LIVE YOUNG!"

Medical Ethics

THE PHYSICIAN AND THE PROHIBITION QUESTION

John Hammond Bradshaw, M.D., F.A.C.S.
Orange, N. J.

(Dr. Bradshaw, en route to Japan, spent a day in Victoria, British Columbia, and sent this article as a result of his comparison of our liquor situation with that of Canada.—Ed.)

"Why do the heathen rage?" (Psalm 11:1.) The wise-crack replies: "God only knows! But, if the heathen lived in the United States we could understand it." Whether the prohibition law is a second-class good law or a first-class bad law is making the disturbance. But of this we are sure. The doctor ought to know "where he is at". If the law is a first-class good law, the doctor should be the first to support it. He occupies a unique position in the community in regard to this question, for it is one not only of government, social order, public morals, but essentially a question of public health, and if the physician is such a poor citizen as to ignore the former, from the very nature of his calling and his livelihood he is bound to consider the latter.

We have now been ruled by the Eighteenth Amendment for just about 9 years. Some think this a fair trial, but its average supporter tells us it will take 25 or 50 years to give it a fair trial! I suppose after 50 more years it won't make much difference to us, personally, anyway. But the subject is no joke! In importance it ranks with the old slavery question. Abraham Lincoln, even in his day, said: "Intemperance is one of the greatest, if not the very greatest of all the evils of mankind. That is not a matter of dispute."

But do we thoroughly understand the Eighteenth Amendment?

"The manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from, the United States and all territory subject to the jurisdiction thereof, for beverage purposes is hereby prohibited; the Congress and the several states shall have concurrent power to enforce this article by appropriate legislation."

This seems rather comprehensive, but it remained for the Supreme Court of the United States to give the Act additional teeth:

"The first section of the Amendment, the one embodying prohibition, is operative throughout the entire territorial limits of the United States, binds all legislative bodies, courts, public officers and individuals within those limits, and of its own force invalidates every legislative act whether by Congress, by a state legislature, or by a territorial assembly —which authorizes or sanctions what the section prohibits."

Moreover, after almost 9 years of fairly general disobedience, where every individual who contravenes this Act becomes a law breaker and a criminal and is a traitor to his oath to support the Constitution of the United States with his life, liberty and fortune, we have now added thereto the *Jones Law*, making the law breaker a felon and sub-

ject to a fine of $10,000 or 5 years' incarceration in the penitentiary at hard labor, or both. Selah!

Now let no one dream that this has been "put over" without protest. Dr. Nicholas Murray Butler, one of the most brainy of the protestants, I believe to be a patriot and absolutely honest in his convictions. But Dr. Butler is not the only man who thinks that the law is a mistake. William Howard Taft, Chief Justice of the Supreme Court of the United States (I know not what his beliefs are today), said, when the law was under consideration: "This law will take the control of the liquor traffic out of the hands of the law abiding citizens and place it in the control of the criminal classes." (Quoted by the Portland *Oregonian,* March 25, 1929.) Does anybody doubt that the sequence of 9 years of prohibition control has not fulfilled his prophecy? Dr. Butler has been called by the "drys" every abusive name in the dictionary. His life has even been threatened. One writes to him: "Sooner than see you destroy my sons with rum, I have decided to kill you at my first opportunity." Signed, "A father of Southern blood who upholds the laws of the country." Another, "You belong to the filthy hog type . . . three men dead who did not take warning of the writer."

But Dr. Butler's position is a tenable one. *"The least important element in this problem is liquor. The important question is government, social order, public morals, and a constructive and permanent method of dealing with the evils of the saloon and the liquor traffic."*

After all is said, Dr. Butler's record is not such a wretched one: "In 1886, I was sent by my country as a delegate to the Republican State Convention of New Jersey. I was put on the Committee of Resolutions. I cast the eleventh and deciding vote in that Committee, 41 years ago," (quoted from a speech made April 8, 1927) "for a declaration against liquor traffic and the saloon, and *I have been fighting them ever since."* (Italics mine.)

As someone has truly said, the terms "dry" and "wet" are misnomers. For the drys are not dry, nor are the wets wet. And who, anyhow, wants a vaccine to take the kick out of liquor?

When we come to consider Senator Borah's stand on the Prohibition question, we must all do him honor. His keynote is: "To support the Constitution let every American pledge his life, his property and his sacred honor." These are noble sentiments. But how about the Fifteenth Amendment? If it is a crime to defy the Eighteenth, why not the Fifteenth?

President Hoover we all admire and hold in deepest respect. He paraphrases Abraham Lincoln himself when he tells us: "If citizens do not like a law, their duty as honest men and women is to discourage its violation: their right is to work openly for its repeal." Furthermore, he hit the right note when he said if the bootleggers had to depend upon the criminal classes to buy their wares, they would cease to exist.

In an address, James M. Doran, Commissioner of Prohibition, at Yale University as recently as February 20, 1929, tells us: "Prohibition as a national policy is not, in my judgment, in nearly as much danger from bad people as it is from good people." If this is so, why not stop and think! "The Government does not poison alcohol to enforce prohibition." The term "poisonous Government alcohol" is not warranted. Poisoning by mechanol (wood alcohol) is not apparent until its concentration in a mixture with ordinary ethyl or grain alcohol has reached about 35%. The formula used by the Government is never higher than 10%. In order to be killed by this form of denatured alcohol, one must take into his system several times the fatal quantity of grain alcohol!

The Commissioner (perhaps justly) blames the failure to obey the Prohibition law to a lack of local civic responsibility.

Now after all is said that can be said, there is no escaping a few facts. As Oliver Wendell Holmes said of many of the drugs in his day, if they were all thrown into the sea it would be all the better for man and all the worse for the fishes. *The record of the decreasing use of alcohol in medicine is astonishing.* Only 48% of all the physicians owning liquor requisition blanks furnished by the Government now make use of them. (Statement from Washington.) All doctors who are employed by large manufacturing corporations tell us that since prohibition went into effect in 1920 there is a marked element of efficiency improvement; bad Mondays are unknown. The social workers are in favor of Prohibition almost to a unit. Why? They see better home and social conditions than they found before 1920.

You may think that this is not germane to the physician. We think it is.

I went today into a Government Liquor Store in British Columbia. I thought I was going into a bank. The men behind the counter were gentlemen. The place was cleaner than a drug-store. I asked a few

questions and received intelligent and courteous replies. Yes, if I paid a $2 a year license tax, I could go there and buy any of their goods. They were protected in quality by Government guarantee. No, they could not sell me a drink on the spot. The best whiskey would cost me $4. I could buy all I needed. Yes, the license was absolutely necessary, for it *reserved the right to revoke in case the privilege was abused.* I remained chatting with the head man 20 minutes. During all that time not another customer came into the place, and it was the only one in that locality.

Is this the answer?

(Foot note: Since writing the above, I have received a letter from Dr. Samuel W. Lambert, in which he says: "In a recent paper on 'Alcohol and Old Age', I have shown what the profession is up against. My personal opinion is that this matter has gotten beyond the stage where anything can be done outside of Congress, and also that if the fight is to be successful it must be supported and carried on by the American Medical Association and its branches, state and county, as representing the organized profession in this country.")

Medical Economics

ORGANIZING A PHYSICIANS' CREDIT BUREAU

Hugh F. Hazen

General Manager, Physicians' Credit Bureau, Inc.
Birmingham, Alabama

(Reprinted from Medical Economics, May, 1928)

In February, 1919, a group of physicians in Memphis met together and decided to create a credit bureau. They agreed to call it the Physicians' Business Bureau, Inc., and, after incorporation, issued 85 shares of stock at $10 a share. The holders of the shares further agreed to pay a small annual assessment until the bureau would be entirely self-supporting.

From that day until March 1922, or just one month more than 3 years, the bureau lay in a dormant state. It had been created, but it had not moved. The physicians knew that they should have a credit bureau, wanted one, but none of the members, apparently, had the time or experience needed to overcome the inertia of a new-born organization and start it rolling up the grade. There was the willingness, but not the execution.

This is not said in a derogatory spirit. The physicians of Memphis were not lacking in ability or push; but they were physicians, and not business men. It would have been the same in any other city; indeed it probably has happened more than once and I would be willing to bet that somewhere in the United States some group of physicians is up against the same kind of problem—namely, starting an extra-medical activity which they could not finish.

To go on with the story, it so happened that a layman, an experienced credit man, conceived the idea of starting a physicians' credit bureau in Memphis, a bureau which would be owned and controlled by physicians, but managed by himself. Then he found that such a bureau was already in existence, but not running. The final outcome was that he agreed to manage the Physicians' Business Bureau of Memphis, Tennessee. For the purposes of the story, I must confess that I was the credit man to whom this exceptional opportunity was given, and since that time I have been responsible for its management, as well as organizing and operating a similar credit bureau in Birmingham, Alabama.

The year 1926 showed net collections for the Memphis bureau's 300 odd members amounting to approximately $133,000; an average of a little better than $11,000 per month for the year.

I believe the methods we used in establishing the Memphis bureau on a self-supporting basis will be helpful to physicians, in other communities, who may contemplate a similar activity. We first secured 104 signed contracts or agreements. Each of these 104 members agreed to pay an assessment of $18, payable $3 cash, and $3 per month for 5 months. We needed the funds thus secured to get us under way before collections began to make the bureau self-supporting. An office was opened, a collector and stenographer retained, and with the accounts received from a few members we began.

Immediately the physicians in Memphis noticed a difference. Not only were accounts collected more satisfactorily than ever before, but the public became impressed by the existence of a collection bureau and with the fact that a physician's bill was something to be paid. Many members have stated that their collections (outside of the accounts they turn

over to the bureau) are from 25 to 50% better.

During 4 years the Memphis bureau handled approximately $1,800,000 worth of delinquent accounts.

In March 1927, I inquired of Dr. Cecil D. Gaston, then President of the Jefferson County Medical Society, in Alabama, as to the feasibility of establishing a like bureau in Birmingham. The result was that I went before the society with my plans, and on March 22, 100 shares of stock at $10 per share were issued to 100 members. Each share carried an assessment of $15. It has been more than a year since then and our progress has been very much like that at Memphis.

Some physicians' collection bureaus operate in conjunction with a regular Retail Credit Men's Association. We do not. I believe that an organization of this sort can function better alone and independently, specializing on its own particular line. The bureau should have its own scale of commissions and handle its own collections without the aid of any outside medium.

I have not much faith in the regular commercial agency as applied to physicians. Of course there are many reputable agencies, but in the past physicians have often been imposed upon by "fly-by-night" agencies and other worthless collection schemes.

We do not ask the doctor to send out any letters after he decides that an account has reached a state of delinquency. Usually 90 days is a fair time to wait, and if no satisfactory answer has been received to the doctor's own statements in that time, the account should be turned over to the bureau. The bureau will then write a courteous, short note to the patient requesting that some arrangement for payment be made; 2 or 3 more letters may be sent as follow-ups before taking action. Collections are subject to a low commission.

The President of the Physicians' Business Bureau, Inc., Dr. H. B. Everett, has this to say of the Memphis activities:

"This organization has been in active operation now for almost 6 years. We are regularly incorporated under the laws of the state of Tennessee, have a charter, and the members of the medical profession own the entire stock in the organization. This was done to get the management of the organization out of the local medical society but to retain its management in the members of the local society. The requirement for membership in our organization is that one must be a member of our local medical society. A few months ago we took in the dentists and the requirements with them are the same. We also have hospital accounts. The first year we were in operation it was necessary for us to charge a membership fee, but after that time we were able to eliminate this fee and since then have relied solely on commissions earned from the collection of accounts. The commissions range from 15 to 50% depending on the size of the account and location of the debtor, and also whether the account is collectable without suit.

We have a Board of Directors that meets once a month and discusses our problems with our manager and also deals with the matter of setting salaries and other remunerations for our employees.

We have found the organization here has been of great benefit to us, since it has taught people to pay bills that heretofore have not been paid as they should and could have. We supply credit information to our members only, from our files as we have it. This does not in any way form a black list, as credit information passed on to our members is for their use or guidance. They may go to see anyone they choose, and charge the account as they see fit. We do not try to regulate this feature.

We have accumulated a surplus fund to meet emergencies if any arise. We have not paid dividends to our members because it is not a money making organization, other than to make all collections possible.

I think practically all the physicians in the city will agree that this organization has been of great benefit to them in collecting bills they otherwise probably never would have received.

We have all of our employees bonded, not that we think they are dishonest, but simply as a further protection to our members."

A western physician, driving along a lonely road, picked up a "hitch-hiker," according to a news story. For ten miles he and his companion, a likeable young fellow of about twenty-five, discussed everything of mutual interest. Then the doctor reached for his watch. It was gone!

Whipping out his gun, he is alleged to have covered the youth and barked, "Hand over that watch!" The young man did so quickly, with a surprised look—then ran down the road.

The doctor's wife asked him that night, "Didn't you miss your watch today? You left it this morning on the dresser!"

To maintain our great national prosperity we must continue to spend, we are told. To insure our individual prosperity we must save. Now that's all cleared up.—Detroit News.

Observations from the Lighthouse

Inasmuch as several of our original articles this month deal with anesthesia it seems logical to utilize for this department an excellent review of "anesthesia in obstetrics" published in the New England Journal of Medicine quite recently (200:677, Mar. 28, 1929), and which seemed to us worthy of the widest dissemination. We, therefore, take advantage of the opportunity to reproduce that review in full.

ANESTHESIA IN OBSTETRICS

"The problem of diminishing or arresting pain during childbirth is one which has commanded the interest of the profession since the earliest times. At first, some forms of alcohol, chloroform and ether were resorted to, but these could only be used in advanced labor, during the second stage, and nothing was done for the long first stage which is so wearing, especially to the primipara.

In about 1906, morphin-scopolamin narcosis was tried. In the early attempts several doses of morphin were given with the result that many asphyxiated babies were born. In 1914 this technic was refined at Freiburg and only the initial dose of morphin sulphate, gr. 1/6 was given; the scopolamin hydrobromide in doses of 1/200 gr. was repeated up to the point of amnesia. The method was tried in most American obstetric clinics, but was soon given up as a routine measure because of the danger to the baby.

What requirements are essential to an anesthetic agent in obstetrics? First, the agent must be safe for the mother and child; second, it must be capable of diminishing pain without arresting labor; and third, its method of administration must be simple so that it can be used in the home as well as in the obstetric clinic.

We divide anesthesia in obstetrics into first stage anesthesia and second stage anesthesia.

First stage anesthesia. At the beginning of the first stage, especially with the primipara, analgesia may be begun by the administration of a barbital preparation. Ipral, in a 2 gr. dose, is a good preparation since it causes but little depression. When labor is well established, with regular contractions, and the cervix about 2 fingers dilated, morphin sulphate, gr. 1/6, and scopolamin hydrobromide, gr. 1/150, are administered subcutaneously. The scopolamin hydrobromide may be repeated once or twice in doses of gr. 1/200 if the first stage is prolonged; the morphin is not repeated. This usually carries the parturient to the second stage with a fair degree of comfort.

Instead of the above, one may use morphin sulphate, gr. 1/6 early in labor, followed by 20 or 30 gr. of chloral hydrate administered rectally.

Second stage anesthesia. During the second stage, gas and oxygen may be administered with each pain. Ethylene has been recommended for the same purpose but has never gained much vogue because of its explosive properties. The actual delivery, whether normal or operative, is best carried out under ether anesthesia, as is the repair of the perineum when necessary.

Gwathmey's synergistic anesthesia. With labor well established and pains coming at 5-minute intervals and lasting 40 seconds, a cleansing soapsuds enema is given. An intramuscular injection of 1/6 or 1/4 gr. of morphin, depending upon the weight of the patient, and 2 c.c. of 50% solution of magnesium sulphate is given deep into the gluteal region. Morphin sulphate, gr. 1/4 is usually the proper dose, but in a small woman 1/6 gr. is sufficient. Twenty minutes after the first injection a second injection of 2 c.c. of 50% magnesium sulphate is administered, whether the effect of the primary injection is sedative or not as it tends to prolong effect of the morphin. When the sedative effect of the morphin-magnesium sulphate begins to wear off, usually in 1 to 3 hours, and when the parturient is about 3 fingers dilated, the ether rectal instillation is given through a suitable apparatus. The apparatus consists of a 4 oz. funnel attached to a 20 in. length of rubber tubing, which is in turn connected by a glass connecting tip to a red rubber catheter, size 20 or 22, French. The rectal ether mixture has the following formula:

Quinin alkaloid	20 gr.
Alcohol	40 min.
Ether	2½ oz.
Olive Oil, enough to make	4 oz.

This rectal mixture should be preceded and followed by an ounce of warm olive oil. A third injection of 2 c.c. of 50% magnesium sulphate is now given to prolong the action of the ether. The patient now is drowsy and sleeps lightly between pains, but consciousness is not entirely lost.

The rectal mixture may have to be repeated once or twice, at 3 hour intervals; the mixture is the same except that in the repeated doses 10 gr. of quinin alkaloid is used instead of 20 gr. Each repeated dose should be followed by the injection of 2 c.c. of 50% magnesium sulphate.

A minimum of inhalation ether is needed for the delivery; gas, if desired, is safe, but chloroform should never be used. A labor so conducted is practically painless. Harrar, of the New York Lying-In Hospital, has reported 5800 such anesthesias without danger to the mother and child.

Recently, articles have appeared in the literature recommending spinal anesthesia in obstetrics; *the subject can be dismissed by stating that it is too dangerous a method to use in the ordinary case of labor.*

Local infiltration anesthesia and parasacral anesthesia, while safe, demand too exacting a technic to make them available in places other than the well equipped Maternity Service.

Chloroform had a great deal of vogue some years ago. The dangers of this form of narcosis have been responsible for its elimination from obstetrics as well as from surgery.

In Lighter Vein

Of All Sad Words

The Senator from the West sat in the lobby of a New York hotel admiring the scenery. Finally two of the component parts of the vivid landscape moved in his direction and stopped directly in front of him.

"Good evening," said one of the girls; "you look lonesome."

"I am," replied the Senator.

"Well, forget it. Come along with us and we'll show you a good time."

The Senator sighed. "I can't do it," he said. "It's too late."

"Aw," replied the girl, "it ain't late. It's only 9 o'clock."

"But I didn't mean that," retorted the statesman. "I meant 20 years."—Collier's.

He'd Sell Ice in Alaska

A certain salesman was proposing to his best girl.

"And, sweetheart," he finished, "I'll lay my whole fortune at your feet."

"It isn't a very big fortune," she reminded him.

"I know, dear," he replied, "but it'll look awfully big beside your little feet!"

He got the job!—Sales Tales.

Sharp Practice

A needy negro was borrowing 10 dollars for one week, and on counting it discovered only 9 dollars, to which he called the loan man's attention. It was explained that 1 dollar had been deducted as interest, and as customary was collected in advance.

Blinking his eyes in amazement, he scratched his head and mumbled, "I'se sho' glad Ah didn't need dis money fo' ten weeks."—Forbes.

The Film Racehorse

Whenever you observe this noble beast
Doped, hamstrung, poisoned, stabbed, well-nigh done in
(Locked in a burning stable at the least),
You bet your bottom dollar—*it will win.*
—London Calling.

Separation in the Home

"Listen, Mazie, my husband sits around the house and won't talk to me."

"He has probably deserted you, but can't afford to live any place else just now."—Harry Hershfield, New York Evening Journal.

Model Young Men

"I'm so proud of my boys," said one of the happy mothers of this neighborhood, "and not one of them has ever been arrested except for speeding and on liquor charges."—Denver News.

"So you sent your son to college? What is he doing there?"

"Aging."—Texas Ranger.

Accident

A man fainted on the street and a passerby gave him a drink out of his flask.

But he probably would have died anyway.
—Judge.

Communications

A VISIT TO THE ROBERT C. COFFEY CLINIC AND PORTLAND SURGICAL HOSPITAL, PORTLAND, OREGON

(Letter from John Hammond Bradshaw, M.D., F.A.C.S., Orange, N. J.)

Among all the men doing good surgery in the far West, there stands out with marked prominence Dr. Robert C. Coffey. A big man, physically, with dark brown hair without a streak of gray, light china-blue eyes, he has a genial smile, but there is no question but that he takes life seriously and that his surgical work is his consuming passion.

Educated in Kentucky and going first to Idaho to practice, he came to Portland, Oregon, just 29 years ago. Dr. Coffey has under his full control a hospital of almost a hundred beds. He operates on 3 days a week, and the material is abundant enough to keep him hard at work in the operating room on those mornings from about 8 a. m. until long after 1 p. m.

The hospital is an attractive red brick structure only 2½ stories high but extending in rather the pavilion style. As Portland for many years has been the metropolis of the great Northwest, a shipping port on the Columbia River only a few miles from the Pacific Ocean, an old trading post near by to Astoria (noted for its John Jacob Astor fur trade), and feeding with supplies many miles and many thousands of population, it is but natural that people looking for good surgical care should turn in this direction rather than take the long and tiresome train journeys of 3 or 4 days' duration to the great surgical clinics nearer the Eastern part of our country.

Dr. Coffey was astute enough to see all this, and soon developed an enviable reputation which, fostered by genuine ability, grew to such an extent that he was positively obliged to have his own clinic and his own hospital.

When I first entered the Coffey operating room I was shown to the visitors' gallery. And there must be visitors afoot, as there is seating room for at least 50 persons, all perfectly screened off from the floor by hermetically sealed plate-glass screens. The illumination is noteworthy, for besides the large north skylights there is a most remarkable lighting system in the ceiling. Domes, about 10 inches in diameter, each contain a light *blue glass* globe of 150 candle power; and as there are 40-50 of these domes regularly spaced, one can figure a rather high total candle power of illumination. The light, coming from so many directions, avoids all shadows in the field itself.

When I entered, Dr. Coffey was finishing a pylorectomy. He is not what one would call a rapid operator, but one at once observes that the brain and not habit or routine directs each movement of the hand.

The incision in this case had been a median one, and as I watched him closing it he drew the peritoneum and adjacent tissue into a mesial raphé. Next, he sutured the fascia of each side not to the opposing fascia but to this median line. His silk-worm through-and-through sutures were then inserted about 1 in. apart. The skin

was closed by a buttonhole stitch of the B. and B.'s dermoid material (celluloidin) black in color and like unto fine silk (but without the objections of silk). The silkworm sutures were tied last of all over a bolster roll of gauze, making not only an immovable but an excellent primary dressing.

The next case was (to me) rather unusual. A woman of 30 had a year before undergone a cholecystectomy at the hands of a surgeon in another city. Following the operation, instead of getting well she became more and more jaundiced until, when she was placed on the table this day, her icterus was extreme. Emaciation was also marked. Now, cutting down, the biliary duct was found much enlarged. When this was aspirated, as a preliminary procedure, 10 c.c. of *clear watery* fluid was removed. A traumatic stricture of the biliary duct was found and a suitable rubber tube was inserted over 3 in. and sutured there, entirely within the duct. The wound was closed with drainage of many carefully rolled gauze wicks—12 in. long by ½ in. thick, enclosed completely by gutta percha tissue. This method of drainage, Dr. Coffey is quite partial to, as it is so easily removed, gives perfect drainage while in use, and causes few or no adhesions.

The next case was a very fat woman whose symptoms had all been referred to the pelvic abdomen and the lower right quadrant. A median incision only found extreme enteroptosis in the region of pain. About 10 in. of displaced colon and cecum were stitched to the posterior abdominal wall. Exploration of the gall-bladder revealed stone; showing how we should always explore the gall-bladder. The wound was closed and another incision made over the gall-bladder, and the usual cholecystectomy was performed.

The next case was an ordinary Bassini operation for inguinal hernia. The surgeon used chromic catgut for his deep sutures and said he had given up the use of kangaroo tendon as being wholly unnecessary.

The final case that I stopped to witness (and I may say in passing that soon after having entered the operating room I was called down on the floor, and so had an excellent view) was a prostatic case. A few days previously, Dr. Coffey had made a preliminary bladder drainage, and patient was now brought in to have a vasectomy performed. This, in very old men, Dr. Coffey almost always does in these infected bladder cases. "It saves many a case of subsequent orchitis."

There were also a number of little things I observed. Dr. Coffey believes in tincture of iodin; he seldom uses mercurochrome. In all but one of the operations I witnessed, nurses served as Dr. Coffey's assistants, and most efficient and helpful they were in every case. Ether was given in all operations except the vasectomy, when the usual local novocain anesthesia was employed.

In October of each year the A. M. A. invites the State Society Secretaries and Editors to a conference, and these guests have full opportunity to inspect the plant and meet the workers of our national organization. It is a pity that every member of the medical profession cannot enjoy a similar privilege. Last year the State Medical Societies of Michigan and of Wisconsin sent their County Society Secretaries on special visits to A. M. A. headquarters. The following letter from one of those secretaries seems worth republishing from the Michigan Journal:

F. C. Warnshuis, Secretary of the Michigan State Medical Society:

In reply to your letter of January 18, regarding impressions received at our last conference of County Secretaries, held at the headquarters of the American Medical Association in Chicago.

I want to express my hearty approval of the wisdom of the plan to have held this conference at A. M. A. headquarters. I previously had a faint idea of what our A. M. A. meant to the medical profession of the United States, but not until I had seen all the different departments and viewed at close range how hard and earnestly these employes of the medical profession of the United States are working for the interests of the physicians of the country, as well as to advance the health of the general public, did I come to a realization of what a colossal task the A. M. A. is constantly performing.

There is one little bill that in future I will always meet promptly and cheerfully, and that is my A. M. A., and fellowship dues. I will at least give our great A. M. A. this small support. I certainly got a great inspiration from meeting with and seeing the big men of our profession who so unselfishly give themselves to the betterment of their fellow practitioner and the public in general. It is encouraging and enlightening to know that in the mad race for selfish gain, there is a great organization in the good old U. S. A. which stands guard over the health of the nation and constantly guarantees that the latest developments and discoveries of science will be gratuitously laid at the citizen's door. It is a good omen, and we physicians should be proud of our part in the plans and activities of this great organization.

I am sure that every County Secretary who attended will be a better County Secretary in every way. Personally, I am going to make a strenuous effort to secure a 100% support of all the regular ethical practitioners in my county. We have a few physicians in our territory who are not members of our County Medical Society, but who are eligible to join, and believe me, I am going to work on those birds 100%. When a state licenses a man to practice medicine, it seems to me that as little as he can do, would be to support organized medicine, by belonging to his County, State and National Society.

Deeply appreciating the opportunity to attend the recent conference, I am

Your very truly,

T. P. Wickliffe, Secretary.

Medical Book Reviews

(Department Director, Royce Paddock, M.D., Newark, N. J.)

THE FUEL OF LIFE. Experimental Studies in Normal and Diabetic Animals. J. J. R. Macleod. Being the L. C. Vanuxem Foundation Lectures delivered at Princeton University, March, 1928. Princeton University Press, 1928. Price $2.50.

Simple style and sufficient detail characterize this campact volume of 140 odd pages contain-

ing the lectures of Dr. Macleod. The viewpoint of the author, long known as an authority on metabolism of the carbohydrates, "differs somewhat from that held by many workers in this field", according to his own introductory explanation. As professor of physiology in the University of Toronto, and there directly concerned with the work which led to such wide clinical application through the discovery and investigation of insulin, the author commands the attention of all medical men. It is particularly interesting to know that his views on the fuel of life conflict definitely, as he admits, with those of Dr. Graham Lusk, his fellow professor of physiology in Cornell University, and a noted authority on animal metabolism. Such differences of opinion between authorities provide especial impetus to future research and produce many valuable results in addition to adding a glamour of individuality to cold facts. In these Princeton lectures Dr. Macleod has reviewed the work of his own laboratory, as well as the work of other investigators of this problem. The question is as follows: can the animal body make direct use of fat as fuel in the absence of available carbohydrate? To the affirmative claims of Dr. Lusk and workers abroad, the author answers that fat must first be converted into carbohydrate before it becomes available for use by the muscles as the principal converters of energy in the animal body. Connected with this central problem is much of present day metabolic research.

To the support of this assertion Dr. Macleod brings facts from many fields of physiologic research. From the physiology of muscle in cold blooded animals, where the work of Fletcher, Hopkins, A. V. Hill, and Meyerhof have developed our knowledge of the relationships between glycogen and lactic acid to a point which indicates the exclusive use of carbohydrate, he proceeds in other fields to marshal numerous supportive data. In man, for instance, muscular activity often shows a respiratory quotient of 1, indicating exclusive carbohydrate combustion. The work of Mann and Magath, on hepatectomized dogs, shows that previous rendering of the animals diabetic, by removal of the pancreas, does not alter the rise in the respiratory quotient which occurs after hepatectomy. This indicates to the author that carbohydrates can be used by the muscles even in the absence of the pancreas and its internal secretion.

The behavior of the blood sugar in starvation is favorable for the supported thesis, which implies that the blood sugar is the connecting link between the exclusive use of carbohydrate by the muscles and the new formation of glycogen from noncarbohydrate material in the liver. The blood sugar in starvation rarely reaches the level of hypoglycemic symptoms, nor does glycogen disappear from the liver or muscles. In a starving dog, however, the glycogen stores already laid down in liver and muscles, would be used up in approximately a single day. In fact, the formation and break-down of glycogen by the muscles proceeds although the blood sugar may be lowered, and glycogen persists under conditions of starvation which strongly suggest its derivation from fat.

By special methods, also, the transformations of carbohydrates in liver and muscle have been compared in vitro in the author's laboratory, and while in liver glucose is formed from glycogen under these conditions, in muscle glycogen quickly disappears, with a marked increase in lactic acid after an interval. The author considers the possibility of an intermediate substance, between glycogen and lactic acid, to account for this delay. The presence of such an undiscovered substance would explain some of the mystery which surrounds the fate of glycogen in the muscle.

But it is a study of the ration between glucose and nitrogen in the urine, in dogs rendered diabetic by removal of the pancreas, which affords more positive evidence for the author's assertion. This method, used by Mehring and Minkowski 40 years ago following their discovery of the relation of the pancreas to diabetes, reveals in the later experiments such an excess of glucose in the urine over the protein-derived ratio, that even after all allowances are made, it is concluded that fatty acids must be the source of this glucose.

A clinical side light from these experiments, which the author points out, is that these diabetic dogs, which were formerly kept alive with difficulty owing to their condition, now thrive as long as 4 years by the use of insulin injections and the addition of raw pancreas to the diet to afford tryptic digestion. The author points out that these dogs, when autopsied at the end of these periods, show no arteriosclerosis or degenerative changes, although they have been constantly hyperglycemic and glycosuric for years. This fact would seem to militate against the common notion that a high blood sugar must necessarily lead to these degenerative changes.

Direct evidence for new formation of glycogen from noncarbohydrate material in man is furnished by Krogh and his associates, who found that those on high fat diets expended more energy in doing a fixed amount of work than those on a purely carbohydrate diet.

The fact that the respiratory quotient is not raised in human diabetics by carbohydrate feeding (a fact long considered to indicate that the muscles cannot use carbohydrate in this disease), is differently explained by the author. He considers that it is due to an increased and uncontrolled new formation of glycogen from noncarbohydrate material in the liver. Any addition of carbohydrate would not, then, affect the respiratory quotient, since more carbohydrate is at hand than can be used by the muscles, whose utilizing power for carbohydrate is impaired, but not absent, due to lack of insulin. The added carbohydrate, then, is excreted, because it is in excess. The lack of insulin, the author points out, is never complete in human diabetics. The low respiratory quotient in diabetes is explained as due to the excess oxygen required to convert fat to glycogen, and is not due to inability of these tissues to oxidize carbohydrate. In the concluding chapter, the author considers the possibility of acetaldehyde as a likely, though unproved, intermediate substance between glycogen and lactic acid. He states that as yet no true distinction has been found between the glycogen of liver and that of muscle, though the physiologic dissimilarity of their disposal would lead to the conclusion that they were not identical.

STRABISMUS, ITS ETIOLOGY AND TREATMENT, by Oscar Wilkinson, A.M., M.D., D.Sc., Surgeon in Chief of Washington Eye and Ear Hospital, Washington, D. C. Edited by the C. V. Mosby Company, St. Louis, Mo.

(Reviewed by Dr. L. W. Hughes, Newark.)

The etiology and treatment of strabismus is a subject that is not alone of vital importance to the oculist but to general practitioners and public as well.

The book is composed of 240 pages, divided into 12 chapters, dealing with historic remarks on strabismus, etiology of strabismus, anatomy of the orbit and ocular muscles, physiology of the muscles of the eye, physiology of vision, types and measurement of strabismus, examination of strabismus, operative and nonoperative treatment of strabismus; it abounds with illustrations.

The author has been untiring in his efforts to supply the reader with references and facts, thus making him realize the great amount of work that this valuable book entails.

This book can be most heartily recommended to any practitioner of medicine, and especially to those practicing ophthalmology.

Current Events

CONTINUED REPORT OF THE STATE CAMPAIGN ON DIPHTHERIA, STATE HEALTH OFFICERS' MEETING, ATLANTIC CITY, APRIL 19, 1929

As a preliminary to this report, it seems advisable to review briefly the activities of the State Committee for the Prevention of Diphtheria as told to you at the meeting of the New Jersey Public Health and Sanitary Association at Princeton in December.

At that time there had been appointed in each county of the state a chairman to organize and direct these educational and preventive activities. Seven campaign letters of suggestions had been addressed to them from the office of the Chairman and one to health officers of the state. Something over 300,000 pieces of literature had been prepared and distributed. A special film for the campaign had been donated by a large insurance company. The State Medical Society had contributed the services of its Field Secretary, Mrs. Ethel C. Taneyhill, to assist the county chairmen to fill lecture assignments and otherwise be helpful to the committee, and activities more or less extensive were reported from 12 of the 21 counties. Extravagant promises of reports from other counties were received at the meeting, none of which have yet materialized, but others have been heard from as will be indicated later.

You will also recall that just prior to that meeting, a special group of women had been organized by Mrs. Percy Ingalls, of Orange, to assist the professional group by collecting funds for the purchase of posters and other educational material. This committee of 14 women has functioned most admirably. Nearly $1500 has been collected and with something over $500 remaining in the treasury, your committee for the first time finds itself in the position of having money to spend rather than debts to liquidate. To be sure, $500 is of small account in this campaign but it will care for immediate expenses and we feel confident that ways will be found to secure more when needed. Some idea of the activity of this committee can be gained by the fact that practically 2000 appeal letters have been sent out, an endorsement from Governor Larson secured and sent to newspapers by the State Associated Press, 2000 copies of a special editorial in the Herald-Tribune commending the New York City Campaign reproduced for use in these appeals, and that this group is now known as the Committee of Finance and Education and is planning an active campaign through women's organizations in the state. A questionnaire drawn up by Mr. MacDonald has been sent to 1000 of such organizations requesting information as to what has been done in their communities, what part they played in it, and whether they could use a speaker on the subject during the coming year. Replies are now being received which indicate that this effort will be productive.

It is probable that the most spectacular and effective piece of publicity developed by the committee so far this year was the purchase of 500 copies 24-sheet billboard posters which, on space donated by the Outdoor Advertising Association of New Jersey, were displayed during the latter part of January and all of February at a cost to the committee of about $700; it is estimated by the Association that at commercial rates this space would have amounted to $7290. It is impossible to gauge the direct effect of any single piece of publicity, but it is likely that this has done as much to favorably influence public opinion throughout the state as anything the committee has so far attempted. The Chairman in North Hudson County has just placed an order for 40 of these posters, being financed by the American Legion on space donated by the O'Melia Advertising Company in that district, and a copy has also been sent to the Salem Child Welfare Visiting Nurses' Association for use in that town.

In addition to the Herald-Tribune editorial mentioned above which was printed for us by the Prudential Insurance Company they have also reprinted a revised edition of the "Plan of Procedure for Conducting County Campaigns". Through some kind of clerical oversight, some health officers to whom this was sent last fall failed to receive it. It will be gladly sent to any such, and additional copies to any board of health or health officer who may wish them.

Though this association petitioned the State Public Health and Sanitary Association at the Princeton meeting to delegate to the committee the services of its Executive Secretary, Mr. Woolley, this has not yet been done; doubtless due to the fact that the Advisory Council has had no meeting.

The efforts of Mrs. Taneyhill in this direction are worthy of note. She has informed herself through the State Department of Health with reference to the technical procedures involved in the Schick Test and active immunization. She has been most helpful to several Chairmen in organizing their campaigns, and is apparently an effective speaker for either women's organizations or mixed audiences. This kind of personal field service is of the greatest value and the committee is hopeful that it may eventually

be able to employ a competent executive who will put his whole time into this kind of work.

The newspaper publicity constantly being carried on by the committee must go far in keeping the general public informed of these activities and of the need for diphtheria control work. A monthly news article is prepared following meetings of the Executive Council, and the Tuberculosis League and the Newark Health Department continue to reproduce and mail them out to over 300 newspapers of the state. A special Sunday article in the Trenton Advertiser was prepared by the State Department of Health early in the year, which with suitable illustrations occupied practically a whole page. Articles on the progress of the campaign have been sent out from the office of the Chairman to the Public Health News, the State Medical Journal, the Club Woman, the Civic Pilot, the Republican, and Parent-Teachers' Association Bulletin, and a special article was prepared for delivery over Radio WOR under the auspices of the State Federation of Women's Clubs. At the last meeting of the Council a quarterly clipsheet was authorized, this being a series of articles on a single sheet to be sent periodically to editors of papers and trade journals who may when space permits, clip one or more to be used as fillers. That meeting also authorized the printing of a little leaflet now used by the Newark Health Department entitled "A Message to Parents", being topped by a cut of 3 happy children, with text underneath explaining the prevalence and malignancy of diphtheria, its importance to childhood, the modern methods of prevention, and the ease, simplicity, and safety of the protective treatment: 100,000 copies of these are to be printed and sent to health officers throughout the state with a request that they be inclosed with copies of birth certificates which, by State Law, must be provided to parents of new-born children. At this meeting, a list of the conventions to be held in Atlantic City during the spring and summer was also presented and it was voted to request the Woman's Auxiliary of Atlantic County and Dr. Salasin, Chairman for the County, and Health Officer of the city, to endeavor to have the large diphtheria poster displayed at these meetings and, where possible, to show the film and obtain permission to give a brief talk on the subject.

Since my last report, we have heard definitely from Somerset, Bergen, Burlington, and Hudson Counties. In Somerset, Mrs. Taneyhill addressed 14 groups of people with a total attendance of 862. Because of the influenza epidemic, clinics were postponed, but I believe have since been conducted. Bergen County reports over 15,000 immunizations, Burlington reports a newspaper and film campaign to be followed by clinics and a permanent organization. I understand that Middlesex is now in the midst of similar activity, but the outstanding report so far received is that from Hudson County where, at a total expense of about $300, 192,000 pieces of literature were distributed; 61,000 posters displayed; 25,000 immunization buttons passed out; 24 film showings had before 21,000 persons; 46 lectures given attended by 26,365 persons; 61 newspaper articles; and a total of 18,367 children immunized in clinics and 950 additional—this being a partial report of work done by private physicians.

It is effort of this kind that really proves whether or not this movement is worth continuing. There has, of course, been much done throughout the state of which we have no reports. You have heard me say before and I repeat, that in my opinion there is no single activity in which boards of health can at present engage which will return such definite health dividends as this special campaign. The people of the state are now very well informed, in general, about this disease and the methods employed to prevent it. All that is needed in most communities is somebody to step out, take the lead, and crystallize opinion and direct the effort. The names of the County Chairmen are contained in the new "Plan of Procedure". They are all physicians in good standing in the State Society and in their communities. An opportunity is here presented to all health officers to coöperate in this movement. In many cases, they will be asked to take over the direction of the campaign, which they should accept without hesitation. Rather than for me to attempt to report to you what is being done in your own sections of the state, I should rather ask you to report such events—not necessarily to me—but to this Association, and it is my purpose as soon as possible to learn which sections of the state have not offered this protection to its children and to ask the health officers of those districts to explain why something has not been done. This is a vital health problem. The person who should be preëminently interested is the health officer. While I have no disposition to irritate my friends nor a wish to be crucified even in a cause as appealing as this, I do once again urge my fellow health officers to become actively rather than passively interested in this campaign so that at the end of another year it may be said that no district in this state is so ignorant of the facts, so pusillanimous and lacking in public spirit as not to have provided machinery for the free administration of toxin-antitoxin to those who need it.

Lay Mirror Reflections

WHEN DOCTORS DISAGREE—IN CHICAGO

(From the Literary Digest, May 11, 1929)

The opening gun of a finish fight between organized medicine in Chicago and clinics that treat certain communicable diseases at a little more than cost is seen by a number of our newspapers in the recent expulsion of Dr. Louis E. Schmidt from the Chicago Medical Society because of his connection with a clinic which advertised in the newspapers. In the opinion of the Chicago Association of Commerce, this expulsion of a prominent member "has raised a serious question which affects the entire program of Chicago's medical charity for persons of moderate means."

At the core of the controversy that has arisen, says the Chicago Journal of Commerce, "is the one question that has aroused public interest in it—the question of the cost of medical care." Present rates for medical care "are so high", declares the President of Northwestern University, "that families of moderate circumstances are forced to resort to quacks and patent medi-

cines". In the opinion of the Chicago Daily News:

"The expulsion of Dr. Schmidt by the Chicago Medical Society will tend to clarify and simplify a vital issue that faces the medical profession. That issue, at bottom, is whether the profession itself, by coöperation, organization, and economic use of modern equipment, shall attack the problem of reducing the high costs of services, or whether benevolent lay associations shall perform the task."

Dr. Schmidt, declares Chicago's former Commissioner of Health, "is engaged in a struggle to bring down the high cost of being sick". This official, now coroner, has resigned in protest from the Medical Society. As the Minneapolis Journal explains:

"Ordinarily, the expulsion of an advertising doctor would pass unnoticed. Quacks advertise, in such newspapers, and other publications as are sufficiently mercenary to take their advertising; and the public suffers thereby, both in its pocketbook and in its health.

But this Chicago case is no ordinary one. Some years ago philanthropically inclined Chicagoans of means founded a clinic to combat the charlatans who prey upon the victims of the social diseases. The success of this humane venture naturally depended upon the ability of the clinic to attract to its doors the many ignorant or misinformed sufferers who normally fall into the hands of the quacks.

There was only one way to do this, and that was to advertise widely the existence and the purpose of the new agency. To be fought successfully, charlatanry must be fought with its own weapons, the display advertisement. So the doctor at the head of the Chicago clinic advertised. And his advertising not only saved many venereal sufferers from the swindles of unscrupulous incompetents, but brought in many others who might otherwise have gone without treatment, menacing all with whom they came in contact

For so advertising, the Chicago doctor has now been turned out of the Medical Association as unethical. For devoting his unquestioned talents to the protection of society against a hideous danger, he has been branded a pariah.

Why can not Chicago's organized doctors apply the rule of reason to cases like this one? Even a schoolboy could discriminate between the quack, advertising for victims, and the public-spirited practitioner, devoting his time and ability to a humane and praiseworthy work. Why can not supposedly learned men, who write degrees after their names, do as much?"

One of the grievances of the Medical Society, says the Cleveland News, is that Chicago organizations practicing medicine on a large scale are making it increasingly difficult for physicians engaged in individual practice to earn a livelihood. According to a Chicago dispatch to the New York World:

"The Public Health Institute, which is the center around which the tumult revolves, was established soon after the war for the benefit of suffering war veterans. It publishes whole-page advertisements in the Chicago papers frequently. The other organization which the Medical Society has on the black-list is the Social Hygiene League. Dr. Schmidt is President of the League. It is a charitable clinic and when patients can not pay the fee of the Public Health Institute, the League accepts them and gives them treatment."

For this service the League receives from the Public Health Institute $12,000 a year. The Institute, we are told, is financed and sponsored by some of the wealthiest and most influential citizens of Chicago. Writing in the Baltimore Evening Sun of the controversy, Gerald W. Johnson comes to this conclusion:

"The public has its choice between two theories. One is that the Chicago doctors are so extremely jealous of the dignity of their profession that they hold themselves rigidly to a fantastic definition of ethics. The other is that they were enraged because this clinic is treating, at a very low rate, thousands of patients who, without the clinic, might visit private practitioners and pay a higher rate for the same treatment."

"If," declares the Washington Post, "furnishing medical treatment to those unable to pay the present high prices is unethical, the code of the medical profession is in serious need of revision." What the organized doctors should do, maintains the Louisville Courier-Journal, is to "look into the situation that has been developing of late years, in which the person of moderate means is unable to meet the expenses of being ill—unless he begs or borrows." "There would seem to be something moth-eaten" about a code of medical ethics "so decidedly out of step with the public welfare" as that in Chicago, remarks the Norfolk Virginian-Pilot.

As Frederic Babcock writes from Chicago to The Nation:

"Back of the Schmidt expulsion lies the whole issue of medical costs to the public and the attitude of the profession in America toward philanthropic and semi-philanthropic organizations for providing medical attention to persons of limited means and limited income. Dr. Schmidt and doctors of the Schmidt school of thought assert that medical, hospital, and laboratory care of the sick, now costing Chicagoans from $20 a day upward, could be furnished at a cost of less than $5 a day to persons whose incomes range from $2000 to $5000 a year. These doctors have been trying to bring that about."

On the other hand, the Chicago Medical Society is reported in the Chicago Evening Post's news columns as declaring that the Public Health Institute is a thoroughly commercialized organization; that the members of the society take care of the sick for what they can afford to pay; that it (the Society) deplores as much as the general public the high cost of illness "which is due only in part to the medical fees," and, finally, that "it is unethical for a physician to be connected directly with an institution that advertises." And in the Journal of The American Medical Association (Chicago) we read:

"The Association has been giving serious consideration for years to the problem of the cost of medical care. The bill of the physician represents one small portion of this cost; the total cost represents actually the advancement in medical science, including the use of the x-rays, of laboratory service, of hospital beds, of nurses and many other factors.

"At least 10 representatives of the American Medical Association are actively associated with the Committee of Medical Care, which is endeavoring to make a survey of the situation

with a view to finding out how medical practice may be organized better to distribute the costs that have been mentioned and thereby to lower the costs generally."

CHICAGO PUBLIC HEALTH INSTITUTE HAS A NEWSPAPER HOLIDAY

(From the Journal of the American Medical Association, April 20, 1929.)

Chicago has a medical issue—a problem which began like a slow growing fungus several years ago and which now, by manipulation, stimulation and intricate newspaper encouragement, has burst forth into a scarlet odoriferous blossom. The issue began with the creation of the Public Health Institute—a corporation for the treatment of venereal disease. This institution, not for profit, was developed with the aid of several Chicago philanthropists, the impelling motive announced as the application in civil life of the wholesale methods of treatment of venereal disease used in the Army only during the war. Through full-page advertisements in the press, enormous numbers of patients were secured. The director of the clinic, who, it is reported, has a strange genius for commercial details, if not a respect for established medical ethics, conceived the advertisements as necessary to building the business. Soon the practices of this corporation came afoul of medical organization. The Chicago Medical Society characterized as unfair and unethical particularly the nature of the advertising. Physicians who were employed by the Institute at salaries of from three to five thousand a year, including the director, whose emolument naturally was more, were not permitted membership in the society. Beyond this, the medical society did not wage, and has not waged, anything like an active campaign against the Institute.

In the past 10 years, voices have begun to cry in various social and medical publications that there must be some change in the system of medical practice, that the middle class might be provided with good medical service at a price that it can afford to pay. The voices have been not alone those of economists, of social workers and of interested philanthropists; they have been equally the voices of leaders of American medicine. Dr. Olin West, Secretary of the American Medical Association, himself, in an address several years ago voiced the situation in exactly these words:

> The great outstanding problem before the medical profession today is that involved in the delivery of adequate scientific medical service to all of the people, rich and poor, at a cost that can reasonably be met by them in their respective stations in life.

In the meantime there have been developing throughout the United States experiments of many types in the organization of medical practice. Some of these experiments have been, like the Public Health Institute, uncontrolled by anything resembling scientific medical management, never issuing scientific reports of work done, of cases seen, or of results accomplished. Others have been conducted with strict scientific controls, including social service investigation, accurate statistics, and the publication of regular reports of progress. Some have been conducted, like the Public Health Institute, without regard for medical ethics; others have attempted to confine themselves strictly to medical ethical procedure, so far as concerned advertising and competition.

During the last decade the United States has witnessed the development in big business of modern advertising. Group advertising for good will has appeared on the scene; advertising agencies, as well as publications of one type or another, have urged representatives of various professions and trades to place their wares before the public by the advertising route. People are already familiar with the group advertising of plumbers, undertakers, grocers and druggists, of chain stores and of great manufacturing concerns. Some three years ago, the Chicago Tribune began a drive, which has persisted intermittently since that time, to force the medical profession into group advertising. Editorials have appeared in its columns, and correspondence and news items have been devoted to this propaganda. Even advertising agencies recognize that advertising by physicians or by groups or by corporations for the development of practice would do harm to the public. Such methods permit the noisiest advertisers rather than the most competent physicians to develop the largest practices.

The Public Health Institute, conducted along strictly business lines, has shown that venereal disease can be treated in a wholesale manner at profit. That evidence was not new, since the venereal disease quacks, forced from Chicago by the campaign of the Chicago Tribune, had shown likewise that patients with venereal disease secured in tremendous numbers through advertising constitute a source of profit to the advertiser. The Public Health Institute has made money rapidly from the first, regardless of the fact that patients were alleged to be treated at moderate prices. Its reserve is in hundreds of thousands of dollars. The director and the governors of the Institute have secured good will by increasing advertising appropriations in the press. Most Chicago newspapers derive thousands of dollars annually from the Institute. Furthermore, the presentation of contributions to a few educational institutions and to hospitals has earned the support of some physicians.

As might have been expected, the Public Health Institute could not undertake, with its personnel, to handle properly many of the complications of venereal disease which came inevitably to its attention. Such disturbances as strictures following gonorrhea, and pyogenic infections of the vesicles and glands, require surgical attention. Syphilis—a disorder that affects every tissue in the human body—required, through its complications, the attention of specialists in diseases of the heart, in nervous and mental disease, and in other fields. Soon the Institute began to refer these patients to specialists who were willing to coöperate. The fees for such service were not inconsiderable. It has been known for a long time that many of the patients have been thus referred. The leader in the present publicity concerning this affair—Dr. Louis Schmidt—has openly stated that he has derived much in the way of returns from this source.

The details thus far cited are given in order that the medical profession and the public may have clearly before them the background of the

present furor. Let us hasten the climax! For some years, Dr. Louis Schmidt has been associated with the operation of a clinic for venereal disease conducted by the Illinois Social Hygiene League on quite ethical lines, but conducted with much less efficiency, from a business point of view, than was the Public Health Institute. This organization had shown a constant deficit; it was becoming, no doubt, a thorn in the flesh of its promoters. An arrangement seems to have been made whereby its deficit and other obligations would be met by the Public Health Institute and its directors relieved of a considerable burden. Meanwhile the Chicago Medical Society, as has been stated previously, had been watching this experiment. Its officers were apparently familiar with the intricacies and ramifications that have been mentioned. Their increasing irritation is understandable. Charges had been brought against Dr. Schmidt for his association with the Institute, but these charges were not pressed actively. Eventually, a day was set for a hearing. The evidence is available that for some time in advance of this date the Chicago Tribune had arranged to "break" the opening story concerning the position of Dr. Schmidt in Chicago medical affairs, and to tie up the Institute with the problem of the cost of medical care. Not only the first day's story concerning Dr. Schmidt, but the later items concerning Dr. Herman Bundesen, at present coroner of Cook County, for whom Dr. Schmidt has been campaign manager, were in the hands of the press. With good newspaper sagacity, the story was held for a Sunday morning "break" previous to the date of the medical society hearing, and the medical society thereby placed on the defensive. Whereas the statements for Dr. Schmidt and the Institute had been carefully prepared and suitably elaborated by trained writers, the replies of the society were hurried and were censored carefully by the press and the point of view of the Institute emphasized. The question at issue was the ethical status of Dr. Schmidt; the newspaper story changed that question to a consideration of the cost of medical care, and made Dr. Schmidt the standard bearer in a campaign which had previously, so far as available evidence permits judgment, concerned him but slightly. The Association of Commerce, little disturbed by the increased cost of groceries and dry goods, added its voice to the howling. Thus the great problem of the cost of medical care has been exploited to make a newspaper holiday. Some seekers of publicity and notoriety have been fed to repletion with the joy of their names in eight-column heads on the front page. When the rocket has flashed its way across the sky of publicity, this slender stick will flop to earth.

With these facts in mind, what must be the attitude of medicine toward the situation? The American Medical Association, as has been stated, has been giving serious consideration for years to the problem of the cost of medical care. It should at once be emphasized that the bill of the physician represents one small portion of this cost. The total cost represents actually the advancement in medical science, including the use of the x-rays, of laboratory service, of hospital beds, of nurses, and of many other factors associated with good medical care under modern conditions. At least 10 representatives of the American Medical Association are actively associated with the Committee on the Cost of Medical Care, which is endeavoring to make a survey of the situation with a view to finding out how medical practice may be organized better to distribute the costs that have been mentioned and thereby to lower costs generally. Two of these studies have been under way several months in the headquarters office of the American Medical Association, and the medical profession of America is bearing the heavy cost of these studies. The Rosenwald Foundation is apparently committed to experimentation under scientific conditions, with a view to finding some plan that will be serviceable. The Cornell Clinic, the Milbank Foundation, and innumerable university schools of medicine are likewise undertaking experiments in this field. Under the Commonwealth Fund, well conducted experiments are being carried on in several states. The Commission on Medical Education is endeavoring to determine the nature of medical practice and means for providing better service through the general practitioner. Eventually these experiments and these studies must yield something in the nature of progress toward a solution of the situation, if not an actual solution.

There is, however, no panacea that will cure the condition. The self-seeking, quasimalicious, uninformed if not stupid, mouthings of notoriety seekers will do more to inhibit an early solution than to solve the problem. Already those wise in the ways of the world know that there will come from this Chicago turmoil nothing that can be of benefit. The issue cannot be forced! Dr. Schmidt is not a martyr; he has done far too well in the practice of medicine to assume this rôle. The public must realize that, regardless of the eventual nature of medical practice, physicians will be required for the work; patients able to pay for individual care will always receive better attention than those handled by mass methods. Human beings cannot be relieved of their ailments as are motor cars. No doubt the newspapers will find in another week that the public interest, usually satiated by a week of concentration on any topic, is temporarily turned to other fields. The baseball season has opened. Already as usual the Chicago Tribune itself has shifted its story from page 1 to page 3 and even to page 22.

The Woman's Auxiliary

From the Journal of the Texas State Medical Society we have abstracted part of a letter written by Mrs. Joe Gilbert, President of the Woman's Auxiliary to that society, to the presidents of the county society auxiliaries, because we find the message equally valuable to all members of women's auxilaries in whatever county of New Jersey they may live.

"Please remind your members also of the Auxiliary page in the Journal. Too often perhaps, the Journal remains in our husbands' offices and the inspiring notes gathered by our publicity chairman are not as generally read as they would be if everyone knew of the pleasure their reading entails. Also, such an interchange between us is a splendid means of keeping together throughout the year. Ask your publicity chairman to send notes to the Editor as to some of the things that your auxiliary is doing, and ask your members to read what

others are doing also. In fact, the whole Journal should be of interest to us as an authoritative means of keeping ourselves informed. Remember, it is partly our Journal also.

I wish that I might see each and everyone of you personally. This personal contact and fellowship is, to me, one of the most splendid things that has come, or will ever come out of our auxiliary organization. Let us all try to get to know each other in our own county; then make a special effort to attend district and state meetings. These wives of the doctors are such wonderful persons to know!"

The Editor of this Journal especially invites you to read what appears in this department of the Journal, where each month he gives such news items of auxiliaries as he has been able to collect. Then, he begs you to turn to other pages and search for interesting matter. You will surely find something to reward that search.

Furthermore, please dig out the May issue of this Journal and read the Program for the Annual Meeting of the State Medical Society and of the Woman's Auxiliary to that society. Note what has been provided for you in the way of interesting conferences and in the line of entertainment. Decide to be "among those present". Then, direct *your* doctor's attention to the scientific program and make the decision for him that he is to accompany you to Atlantic City. If it "works", everybody will be happy.

Atlantic County

Reported by Mrs. Maurice Chesler

The monthly meeting of the Woman's Auxiliary to the Atlantic County Medical Society was held Friday evening, May 10, at the Chalfonte Hotel.

Mrs. Samuel L. Salasin presided, and gave a brief report of the state meeting held recently at the Trenton Country Club, Trenton, which was attended by 5 members of Atlantic County, namely: Mrs. Samuel L. Salasin, Mrs. George L. Spencer, Mrs. Carl Surran, Mrs. Lawrence A. Wilson and Mrs. Maurice Chesler.

A bill for $35 was received for a brace purchased for a boy in the public ward of the Atlantic City Hospital, which was ordered paid.

Motion was carried to have a cake sale, Saturday, May 10, Mrs. Milton S. Ireland acting as Chairman, assisted by the officers and members of the auxiliary. Tentative plans were made for a public card party to be held sometime during the summer. Anticipating the success of these 2 affairs, we hope to present the new administration with a stout purse with which to "carry on".

Mrs. Salasin again announced our First Annual Spring Luncheon and Bridge to be held at the Northfield Country Club, Tuesday, May 21.

After close of the meeting, we were entertained by local Boy Scouts who gave "First-Aid" demonstrations, along with songs and jokes by each of them. They were afterward treated to ice-cream and cake.

This being the last meeting of the season, we take this opportunity of wishing the members of all the county auxiliaries a very happy summer, and hope to have them with us at the coming convention in June.

Camden County

Reported by Mrs. T. P. McConaghy

The Woman's Auxiliary to the Camden County Medical Society held a meeting on Tuesday evening, May 14, at the Camden City Dispensary, with the President, Mrs. A. J. Casselman, presiding.

The minutes of the last meeting were read and approved.

The Treasurer's report was read and accepted. Mrs. Casselman told us that Mrs. Hunter, the State Treasurer, advised those present at the State Officers' Meeting in Trenton, in April, that our Treasurer, Mrs. B. F. Buzby, had submitted the very best annual Treasurer's report.

Delegates elected to attend the Convention with Mrs. A. J. Casselman, President, were Mrs. William Raughley and Mrs. T. P. McConaghy. Alternates elected were Mrs. O. W. Saunders, Mrs. William Wescott and Mrs. H. F. Wescott.

A motion was made and seconded that $5 be contributed toward the Convention entertainment.

Mrs. Casselman and Mrs. Raughley each reported they had personally visited Hon. Roy Stewart, Assemblyman, regarding legislative matters and were assured that he would do all he could to look after our interests.

Mrs. Mulford and daughter, of Burlington County, and Mrs. Taneyhill and daughter were welcomed as guests.

Mrs. Casselman appointed the following nominating committee for selection of officers: Mrs. A. Haines Lippincott, Chairman; Mrs. W. H. Pratt, Mrs. Levi Hirst, Mrs. Alex. MacAlister and Mrs. E. C. Pechin.

Mrs. Casselman again mentioned the motives for carrying on the Auxiliary: Hygeia; spreading (proper) propaganda and securing engagements for Mrs. Taneyhill. It was suggested the Parent-Teacher Associations in Camden County be communicated with, in order to secure engagements for Mrs. Taneyhill. This was approved and Mrs. H. W. Wescott and Mrs. T. P. McConaghy agreed to do this work.

After the meeting adjourned, the doctors invited us to join them to hear Dr. Ellen Potter discuss the Sheppard-Towner Bill (see County Society report), and for refreshments.

Cape May County

Reported by Mrs. O. F. Ziegler

A meeting was held Tuesday, May 14, at 11 a. m., Hotel Dayton, Wildwood, with President Mrs. Herschel Pettit in the chair.

After the usual business, the following Delegates and Alternates were elected to attend the convention in Atlantic City, June 12-15, 1929: Delegates—Mrs. H. Pettit, Mrs. F. Hughes, Mrs. A. C. Crowe; Alternates—Mrs. R. Smith, Mrs. G. F. Dandois, Mrs. J. B. Townsend.

We were very happy and honored to have as our guests: State Treasurer Mrs. James Hunter, Jr., and Mrs. Diverty, from the Gloucester County Society; and Mrs. Ephraim Mulford, State Chairman of Entertainment Committee, with her daughter, Miss Caroline Mulford, from the Burlington County Society. They gave very interesting talks on the splendid progress and activities of their societies.

Meeting adjourned to enjoy dinner and social hour with the County Medical Society.

Sussex County

Reported by Mrs. Thomas L. Pellett

Mrs. Bruno Hood, President of the Woman's Auxiliary to the Sussex County Medical Society, gave a luncheon at the Cochran House, Newton, on April 30, with 7 members and 3 guests present. A delicious luncheon was served.

Mrs. Taneyhill brought with her Mrs. Hunter, Treasurer of the New Jersey State Society Auxiliary. During the luncheon Mrs. Hunter gave a most interesting talk concerning importance of the work of auxiliaries, the training of women in medical ethics, and about a protective association to which the doctors of her community belonged.

Mrs. Taneyhill described the work of other auxiliaries and explained many questions not previously understood. After hearing all these interesting things, we were greatly encouraged to carry on the work.

Before the luncheon a short business meeting was held, at which Mrs. Hood presided, and a committee was appointed for increasing the membership; also a nominating committee for electing officers for the coming year.

It is to be hoped that Mrs. Hood will continue her office for another year because we feel the need of her support.

County Society Reports

ATLANTIC COUNTY

John Irvin, M.D., Reporter

The regular meeting of the Atlantic County Medical Society was held on Friday evening, May 10, at 8:30 in the Gold Room of the Hotel Chalfonte, being called to order by the President, Dr. Poland. The minutes of the previous meeting were read and approved.

The Board of Censors reported favorably upon several applicants for membership, 2 Associate and 4 as Active Members; the first being Drs. William B. Kohn and Charles Brown; the second group Drs. W. Cole Davis, Levi Walker, Rolfe Westney, and, as a transfer from the Allegheny County Medical Society, A. M. Stevenson. All were elected.

Dr. Stewart reported for the Committee on Public Health and Sanitation that he had received a letter from Mrs. Caroline R. Shreve, of the Atlantic County Visiting Nurses' Association, in regard to the health examinations usually conducted at the County Fair. These examinations have been conducted on 4 days of the Fair, and it is hoped that the Fair Committee will have the same coöperation as heretofore from the Atlantic County doctors. Dr. Stewart mentioned the fact that people of means from the county had been known to come to the Fair for these examinations in order to avoid the payment of fees, and he expressed the opinion that this should be avoided in the future if possible. It was voted that a committee be appointed to coöperate with the Fair Committee, and the President appointed Drs. Fish, Frank and Stewart, Jr.

Dr. Darnall reported for the Library Committee that 20 to 30 new volumes had been added recently to the library.

Dr. Harvey brought up the matter of a committee which had been appointed some time ago for the purpose of revising the Constitution and By-Laws of the Society, and made a motion that if such a committee was not still in existence, one should be appointed for this purpose. The motion being adopted, the chair appointed Drs. Barbash, Conaway and Carrington.

It was moved by Dr. Stewart, and seconded, that the President, Dr. Poland, be extended the best wishes of the Society upon his departure next week on voyage for Europe.

The first paper, on "The Relation of Mental Hygiene Clinics to General Hospitals", was read by Dr. Henry A. Cotton, Medical Director of the State Hospital at Trenton. (To appear in full in a later Journal.)

The next paper, "Early Diagnosis of Diabetes", was read by Dr. Orlando H. Petty, Professor of Diseases of Metabolism, University of Pennsylvania.

Dr. Petty said that he was not making an official visit, but was sure the members of the Philadelphia Medical Society, of which he is the President, extended greetings to our society. He complimented us on the very able way in which our business meeting is conducted.

In regard to the early diagnosis of diabetes, about a year ago he went over a consecutive list of 100 patients, private and ward, and divided them equally, 50 ward consecutively and 50 private consecutively, to study them on several points. First was the relation of symptoms to early diagnosis; second, relation of the urine examination and blood chemistry.

There are still a great number of physicians who will refuse to make of their own accord or accept the diagnosis of another physician that a patient is diabetic if the patient does not have the "cardinal symptoms" of diabetes. In those 100 cases in relation to the symptomology, 38% did not complain of increased thirst; these patients were from 11 months to 82 years of age. In 34% of the patients there was no symptom of increased desire to pass urine; true, 66% did so complain, but of these the majority were patients 45 years of age or over, hence in the prostatic age in the male or the lacerated pelvic floor age in the married female. Only 33% complained of increased hunger. Only 25% of cases showed complications in the form of boils, carbuncles, etc. Of 100 cases, only 70% showed sugar in the urine when admitted, leaving 30% of the patients, all of whom had rather severe diabetes, who did not show glycosuria even though they had other symptoms and had been told that they had diabetes. Of those 100 cases, 85% required both a dietary régime and insulin, while 15% received only dietary treatment. That is a reversal of the usual, but when one has clinics such as that in the Department of Metabolism in the Philadelphia General Hospital, where 60 beds are kept full, more of the severe cases are seen. Another interesting point was that not 1 of those 100 consecutive cases had a positive Wassermann; but that would not be true in a larger number of cases.

The question of early diagnosis of diabetes is one that troubles even the experienced. You can use respiratory quotient and glucose tolerance tests and then, unless the respiratory quotient is one by an expert, it is of no value, but if it is done by an expert it is of great value.

In the first article Petty published about diagnosis with respiratory quotient study he felt the lower level of the quotient should be .84. Since then he has raised it and will raise it in a future report on 30 cases to 90%.

The following is an example of the sort of case that especially disturbs one. This patient, a doctor's son, adult, was referred to Dr. Petty August 18, 1924, because an insurance company had found sugar in his urine on one occasion and would not allow him insurance. His fasting blood chemistry was 89 mg. per 100 c.c. of blood; urine free from sugar, August 18. He had been routinely following the same glycosuria tolerance test, giving 1.5 gm. of glucose per kg. of actual body weight. That was administered to this patient and in ½ hour a specimen of his blood was taken. His ½ hr. blood sugar after glucose was 200 mg. per 100 c.c. of blood; 80 to 120 mgm. is normal after a 12 hr. fast. One hour afterward his blood sugar was 91 mgm. per 100 c.c.; 2 hr. after it was 89; 3 hr. after it was 80. The first specimen of urine was negative. One hour after glucose there was a trace of sugar; 2 hr. after only a bare trace and 3 hr. after it was negative; one of those traces of sugar was questionable.

He returned on May 7, 1929, not having been seen since August 1924. His fasting blood chemistry was 100 mgm. per 100 c.c. and fasting urine was negative. The insurance company had done this test, or rather it had been done for the company, in Dr. Kolmer's laboratory. They gave him 100 gm. of glucose, then had him come back in 2½ hours. His blood sugar was 180 mgm. per 100 c.c. and 3.9% of sugar in his urine—nearly 400 c.c. urine—a distinct change, because after 1, 2 and 3 hr. in 1924 he had a normal blood chemistry, a trace of sugar in his urine the first time, but 3.9% the second.

One could talk for an hour about glucose tests and how they should be done and interpreted. The usual routine conclusion of the laboratory of insurance companies that if a blood sugar is not normal 2 hr. after ingestion of 100 gm. glucose the patient is diabetic, is wrong and unjust to the patient. There are normal patients whose glucose will not return after the second hour. On the other hand, there are those who will reurn to normal within 3 hr. and still be diabetic, and if they secrete large amounts of urine traces of sugar will be missed. We can not set 2 hr. as the limit. This patient was a potential diabetic in 1924 and since then he has not been eating sugar or pastry but has grown worse. Dr. Petty thinks we will have to change our method of diagnosis and if you want a short easy test with the blood chemistry, the following is a good idea. If a patient shows sugar in the urine by the Benedict test at the end of 2½ hr., that patient should be considered diabetic, even if he has no symptoms, until more delicate tests prove otherwise. This does not settle the early diagnosis but it settles the point that a 24 hr. specimen will miss 30% of potential diabetics. If you want to determine glycosuria, have him void before a heavy carbohydrate meal and then again in 3 hr. There are dangers the other way but Petty thinks this is the safest in that if you find sugar 2½ hr. after a heavy carbohydrate meal the patient should be considered diabetic.

Discussing the emergencies of diabetes and how to treat them, Dr. Petty said that very few, if any, of the emergencies of diabetes can be successfully treated without use of insulin. In spite of its proved efficiency there are still physicians who doubt its value and advise against its use. There is an erroneous idea that insulin is not effective in the treatment of severe acidosis and coma if the patient has previously had these conditions and been treated with insulin. His records reveal many cases that have been successfully treated for these conditions more than once by the use of insulin. He said that while there are many substitutes for insulin on the market, none of these producers dares claim that his insulin-like product is in any way effective in treatment of the emergencies of diabetes.

Early diagnosis of severe acidosis and coma is essential to successful treatment. Patients with coma uncomplicated by other conditions are dyspneic without cyanosis even if cardiac decompensation is present; the lips are frequently red; venous blood, if there is not a marked lipemia, is bright red. Most cases of coma, in the beginning, have constipation, vomiting, abdominal pain, fever, and frequently there is a leukocytosis as high as 30,000. Some have been operated on, the condition being mistaken for a "surgical abdomen".

Blood chemistry studies should be done whenever the urine shows the slightest trace of sugar. When the symptoms of diabetic coma are present, a venipuncture should be done and the patient immediately hospitalized so that by the time the laboratory report is ready he is in proper surroundings for treatment. Laboratory equipment and personnel are important. The technician should be on call 24 hr. in every day of the year; a technician is just as important in treating diabetic coma as an anesthetist is for a major operation.

In severe acidosis, pre-coma, and coma, the destruction of cells of vital organs is so rapid that a few hours delay may be fatal. Petty has seen several cases where death occurred after blood chemistry had been changed to normal by insulin and other measures, emphasizing that the condition must be remedied early if life is to be saved. If the blood sugar is above 250 mgm. per 100 c.c. and the CO_2 below 30%, one can be reasonably sure that he is dealing with diabetic coma. The highest blood sugar he has successfully treated was 1120, and the lowest CO_2 case to recover, and the lowest he has ever observed, had a blood sugar of 472 and CO_2 of 6%. He believes that most physicians give too small an initial dose of insulin. One authority states that 2 units of insulin will reduce the blood sugar 10 mgm. He cited 3 cases to show the lack of constancy in insulin. In the first, 1 unit of insulin was required for approximately every 13 mgm. blood sugar; in the second, 1 unit for every 1.7 mgm.; the third required 100 units of insulin in 6 hr. to reduce the blood sugar from 472 to 294 mgm., or 1 unit for 1.7 mgm. of blood sugar. A brief but not exhaustive review of many of his coma cases showed that during the first 6 hr. of treatment the average blood sugar reduction per unit of insulin was 1.7 mgm. Care must be taken that in using so-called large doses of insulin the coma of hyperglycemia does not pass undetected into the coma of hypoglycemia or insulin shock.

A brief outline of Dr. Petty's treatment, which is to be varied according to the individual case,

is as follows: The blood sugar should be known by the time the patient is in the hospital bed, and the plan of attack should be the objective of a blood sugar between 150 and 200 mgm. and a CO2 above 30% within 6 hr. Calculate the dosage, 1 unit for each 1.5 mgm. of desired reduction. Give half the dose at once, the balance in 2 hr., blood sugar being read every 2 hr. Sodium bicarbonate is given at the ratio of 15 gm. per 50 lb. of body weight, either by mouth or subcutaneously for the first 6 hr. Digitalization according to the Eggleston method is immediately started, as he believes most deaths from coma are due to cardiac failure caused by acidosis. As dehydration is usually present, give 1000 c.c. of liquid subcutaneously. A cleansing enema is also given. Have the patient well covered with blankets and apply external heat to the body, but not legs, if rectal temperature is subnormal. Vomiting is usually soon controlled by giving nothing by mouth and securing rapid reduction of the blood sugar. Gastric lavage is dangerous because of possibility of insufflation pneumonia. When vomiting is controlled, adults are given 1 litre of liquid every 6 hr.; children sufficient to keep the tongue moist. If necessary, give liquids to children intraperitoneally. When the blood sugar is reduced to 400 or lower he usually gives 10 to 20 gm. glucose with each insulin dose.

Great care must be taken that the patient does not slip back after once being improved. Blood sugar reading should be taken at least twice in the 24 hr. following the coma, and insulin and other therapeutic measures continued according to the findings. The diet for the first 24 hr. after coma should be 50 to 100 gm. dextrose and liquids sufficient to avoid dehydration. After 24 hr. the optimal diet may be prescribed.

The above regimen is based on the patients admitted to the Metabolic Division of the new Philadelphia General Hospital and the Graduate Hospital of the University of Pennsylvania. No detailed routine is followed, but the treatment is varied according to the clinical and chemical findings in each case, using the above broad fundamentals only as a guide.

Dr. Petty said that in patients who have reached or passed middle life any trouble with the lower extremities is second to coma in requiring emergency treatment. No diabetic past 40 is receiving proper care if he has not been carefully studied for the following signs of arterial disease of the lower extremities: (1) Pain, paresthesia, tingling, etc. (2) Intermittent claudication. (3) Tendency of feet to be cold. (4) Local cyanosis. (5) Redness in dependent position. (6) Pallor on elevation above horizontal. (7) Absence of arterial pulsations. (8) Oscillometric index by the Pachon oscillometer. General examination of lower extremities usually shows: (1) Dry, scaly skin. (2) Thickened, rough and irregular toe nails. (3) Ecchymoses, blebs, fissures, ulcers. (4) Color changes: that is, redness, pallor or cyanosis. (5) Blanching on elevation. (6) Buerger's angle of circulatory sufficiency. (7) Roentgenograms of blood-vessels and bones. (8) Oscillometric index (Pachon oscillometer) below 1.

Prophylaxis

Avoid long walks and all trauma. The feet should be bathed daily and gently dried with a soft towel and dusted with bland dusting powder.

Exercises, to develop the muscles of the feet and increase the blood supply, should be taught the patient.

If gangrene or infection to the slightest extent develops, remember that gangrene in the diabetic, especially of the phlegmenous type, frequently spreads because of pressure of serum or pus. The only prevention of this is free incision so that drainage is established and the pressure does not occlude other capillaries. If the patient is seen before more than 1 toe is involved, early amputation without sutures, or local anesthesia and free incision of the edematous surrounding area, is accepted by surgeons as proper treatment and may save the extremity. Proper diet, and insulin if necessary to keep the blood sugar normal, is of equal importance for a hyperglycemia prevents normal tissue functions.

Carbuncles, boils, infected wounds, colds diarrhea and any acute infection must be observed as a potential emergency, blood sugar being kept normal, and acidosis prevented.

Finally, Dr. Petty spoke of hypoglycemia reaction or insulin shock. Low blood sugar or, according to the newer methods, no blood sugar, should be avoided, for in the diabetic with depleted glycogen stores it is dangerous. In coma it is possible to pass from hyper to hypoglycemia without clinical signs of the change; but if the blood sugar is read every 2 hr. and glucose given after it is reduced to 300, there is no danger. In the non-coma case it is easily recognized and promptly controlled by use of glucose.

Discussion

Dr. Reed: Dr. Petty preaches careful and accurate control of diabetes. The figures published by the Metropolitan Life Insurance Company show that the mortality rate is still on the upward because mild cases of diabetes are neglected, and the severe cases were waiting for insulin to do miracles.

Dr. Stewart: I am very much interested in both of the papers presented tonight. I do not feel that I can make any comment on Dr. Petty's paper. I am glad to hear him call attention to the 24 hr. specimen for sugar and other conditions; it reinforces a feeling I have had a good many years that the 24 hr. specimen was not the really important one.

Not being an authority to speak on the subject, I am interested in the remarks of Dr. Cotton relative to the establishment of a mental clinic in the various counties of New Jersey. I think our insane and pre-insane patients have been pretty well handled, in a general way, but I do think we have reached a point in our treatment and handling where it is necessary for us to recognize these cases in the very early stages, before they reach the stage where they are a charge on the state. The establishment of a good mental clinic in Atlantic County may do wonders in reducing the number of patients sent to the State Institution. We have many children of substandard mental types that are now being treated in special classes in the state. There are 100 of that type in Atlantic City and they are beng very well handled in the vocational schools. Unfortunately, these cases have not been followed up in the systematic study method that Dr. Cotton has suggested. If a mental clinic could be made active with the cooperation of the school authorities these children

could be given the proper tests and many might be returned to normal classes rather than drift into helpless conditions. The Atlantic City Hospital Staff could very readily take up this subject and discuss it, and from the nucleus of such a clinic in the local hospital, or elsewhere. This matter has been very close to a number of us and as we have with us tonight Mrs. Shreve, I feel that it would be wise to hear a few words from her.

Mrs. Shreve: In our work in the Public Health Nursing field in Atlantic City we come across a great many problems. We have felt that we needed a clinic of this kind and have been actively working on it for the last few months. We would be very glad to have these clinics started so that we could bring our cases to the Atlantic City Hospital instead of having to take them to Vineland for examination, as we do now. Anything the staff of the Atlantic City Hospital can do will be appreciated.

Dr. Kilduffe: I had heard Dr. Cotton's ideas discussed by others and now that I have heard him I see that they do not understand him. It is logical that diseased mentality should be coincidental with a diseased body. It is possible that these mental diseases are due to mild foci of infection. I was glad to hear Dr. Cotton say that once the damage is done, it is done.

One or two things that Dr. Petty said were of distinct interest to me. One was apropos of the first case. Fortunately, he had told the patient he was a potential diabetic. I would be interested to know how this happened. The blood chemistry showed nothing that suggested diabetes. This question of diabetes, and diagnosis and treatment, make one fact obvious and that is that the textbooks will have to be rewritten. What we are interested in now is finding the diabetic before he gets to coma. Dr. Petty is right when he says it is difficult to lay down rules for glucose tolerance tests. We have done enough to know that a man whose carbohydrate metabolism is such as the case quoted showed in 1924 is not a diabetic. I would not tell a patient he was a potential diabetic when he shows no signs of it. There is one relatively simple method that Dr. Joslyn has mentioned. A diabetic under treatment may regulate his diet and show no sugar in his urine but make him eat 3 hearty meals and he will show sugar.

One other thing—relative to technical service—most technical workers are only that and appreciate the fact; they are not doctors. It is true that the doctor is on call 24 hr. a day, but not for $125 a month. If they have 24 hr. technical service in the Philadelphia General Hospital, I would be glad to know how it is done. As far as the Atlantic City Hospital is concerned, I would like to say that I do not see how it is feasible for me to ask a technician to wait 24 hr. for a diabetic coma case to come in, and to have nothing else to do while waiting for that 1 case which might come in. The average hospital cannot work that way.

Dr. Andrews: I think we owe a great deal to Dr. Cotton for his work in this state. It is inevitable that every phase of medicine has to be covered sooner or later, and every general hospital should have a psychiatric division, or have some one to cope with the situation. I am in accord with any movement in which this idea is carried out.

Dr. Petty has taken up the pre-diabetic type and not the more severe ones. I have in mind a case which was operated on for appendicitis and ran a blood sugar of 200 without glycosuria. We are approaching a time when blood sugar is just as important a routine test as a Wassermann. As soon as we get to the point where that is not a burden we will pick up a great many individuals who are on the threshold.

Dr. Taggert: I am glad Dr. Petty brought up the laboratory questions, for I think it is necessary to have 24 hr. service. I would like to ask Dr. Cotton what his experience has been with glandular therapy in deficient children.

Dr. Stalberg: Dr. Cotton mentioned that there is an increase in mental cases and I would like to ask whether he would venture a reason for this increase, and whether it is equally true in other countries.

Dr. Cotton: I appreciate very greatly all this discussion and enthusiasm for my clinics and for my work, as I do not always have this appreciation. I find that various institutions throughout the state are putting in x-ray machines and adopting other ideas which I have suggested, in spite of the fact that they do not agree with my theories.

The question of glandular therapy is one we were interested in 15 years ago. We thought we had found a solution. I had 30 cases under observation, being given all the tests we knew of at that time. Five years' work made no impression on my patients and I gave up this line. A great many hospitals are starting where I started 15 years ago. I gave pituitrin every way, but never got results. I think the disturbances of the glandular function are secondary to the chronic infections. There are certain types of children who benefit by glandular therapy, such as the cretins. The chronic dysfunction can be regulated by getting rid of chronic infections. In children between 12 and 15, many mental conditions can be prevented at that time. It is time for the family physician to realize that the way to prevent that is to clean up the infections.

Why is there such an increase in insanity? It is a large question. The prevalence of insanity is an indictment of American dentistry—for one thing—as 100% of our patients have bad teeth. If they are not taken care of we will not get results. The dental work we do is extraction only. We have been since 1916 trying to clean this up. It is not so far safe to think that tooth infections cannot be communicated—drinking from the same glass or using the same spoon—there are many ways in which mouth infections can be transferred. I believe that more people free of infections will result in less mental trouble. I enjoyed Dr. Petty's paper very much. We do not have many mental cases as a result of diabetes. We do blood sugar tests routinely. In the last 20 years we have had only a few cases of diabetes.

Dr. Petty: I am afraid that I was either misunderstood or else made a mistake. I intended to say that technicians should be on call 24 hr. in the day, not on duty, just as doctors and nurses are. My defense of the statement that I consider technicians and nurses as co-workers and real partners in the work of the doctor is that I learned years ago from business men who successuflly conduct large organizations that the most successful man and institution, or church or hospital, is that one where everybody says "we", even to the delivery boy. I can very proudly say that when I go to the laboratory and we have had an interesting case come in, the technicians will say "look at our case". Until 1917, I was Director of

Laboratories and put in the major part of my time doing laboratory work, and I have the greatest respect for technicians and nurses and directors. We pay the head technician $1800 a year and maintenance. We pay the second technician $1200 a year and maintenance. They have always been and are on call 24 hr. a day. Several others receive no pay, who work under Dr. Karr and very gladly work for a year without pay, but they are also on call. With 2000 beds, every case of coma that is admitted has a blood sugar, urea nitrogen, and urine examination made routinely, and at the Postgraduate with 500 beds the same thing is true. The technicians actually get up 4 days a week and are at work at 7 a. m. in clinics where we treat diabetes. In those clinics 2 days a week the patients are there at 7; blood is taken and the patient waits 35 or 40 minutes for his blood sugar report. We see 30 to 50 patients a day. These are all supervised by a biochemist and all feel they are our co-workers.

In regard to the data which I did not read, I have it here: The fasting specimen was negative; 1 hr. after there was a trace; 2 hr. after there was a trace; 3 hr. after it was negative for sugar. Several years ago Dr. Jonas showed very convincingly that even 15 minutes after glucose tolerance tests some cases rose to a height that would be considered disturbed metabolism. I am of the opinion that in any case where the blood sugar reaches 200 with faint trace of sugar, that patient is probably a potential diabetic. That has been proved, though the question is not absolutely settled. Probably without a respiratory quotient test one should not tell him he is a diabetic. I told this man he should consider himself a potential diabetic and not eat sugar. That is definitely established by his record where 2½ hr. after 100 gm. glucose he still had 180 mgm. per 100 c.c. and 3.9% sugar in his urine. The first of next week Dr. Karr is going to do a respiratory quotient study on this man and I will be very glad to report the result. Personally, I think he is a diabetic and I have never seen a case with a high respiratory quotient and a glycosuria whose blood sugar went that high. If it goes to 200 we consider him a potential diabetic.

I have enjoyed hearing Dr. Cotton's paper. I want to very enthusiastically endorse his work, with which I am acquainted, especially in regard to devitalized teeth and probably unerupted teeth. There is no question that they carry infection and that it affects the mental condition. Any patient who has mental symptoms and who has unerupted or devitalized teeth should have them extracted.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held Thursday evening, May 16, instead of the regular meeting day, in order to hear Dr. Allen A. Krause, of Johns Hopkins, in conjunction with the National Hospital Day celebration at Bergen Pines, and the Bergen County Isolation Hospital at Paramus. The meeting was called to order at 9 p. m. by the President, Dr. Levitas, with about 75 members present. Minutes of the previous meeting were read and accepted.

Dr. Pallen reported for the Golf Committee: There will be a field day at Phelps Manor Country Club on Thursday, May 23; medal play begins at 10 in the morning, for which games Dr. McCormack offers a cup; in order to give all an equal opportunity to win, this qualifying round will be a blind bogey, pick your own handicaps. Luncheon will be served between 12 and 2. For the winner of the afternoon round, the President's cup will be presented by Dr. Levitas, handicaps being assigned on the result of the morning's play.

The Secretary read the following applications for membership: Drs. George L. Kingslow, L. W. Netz and W. K. Harryman, of Hackensack; H. J. McLeod, of Englewood, and Dr. McCauley, of Dumont. Dr. Goldberg reported on the matter of transfer of Dr. Poole, and after due consideration, and a personal interview with the applicant, recommended that the application be not accepted.

Dr. Levitas advised that one of the recent ex-presidents of the society, due to sickness and death in the family, has been reduced to dire circumstances, and he felt that something should be done to remedy his condition, by not only giving him the moral support so necessary at this time but also financial assistance. Dr. Freeland stated that he was well acquainted with the situation and knew of the struggle that had been made by this gentleman, and he felt that we should all dig down into our pockets to help. A committee was then appointed to investigate this doctor's immediate needs, with the power to spend up to $500 and also plan for his future welfare.

Dr. Allen Krause, of Baltimore, was then introduced by Dr. Levitas, and delivered a most interesting and instructive address on "Clinical Tuberculosis". Discussion was opened by Dr. B. S. Pollak, Medical Director of the Hudson County Tuberculosis Sanatorium, who said that it was a matter of regret that physicians other than those present were not able to hear Dr. Krause's very able lecture, for only after hearing such a discourse could one perceive and visualize the tuberculosis problem as it is today.

Dr. S. B. English, Superintendent of the State Hospital for Tuberculous Diseases, Glen Gardner, N. J., expressed his appreciation of the lecture and congratulated the county in having so magnificient and complete isolation hospital.

Concluding the discussion, Dr. Levitas expressed his sincere gratitude in behalf of the Bergen County Medical Society to Dr. Krause for the very great privilege of hearing him, and asked for a rising vote of thanks for his kindness in coming to Bergen County at this time.

After a splendid collation, served by Dr. Morrow's force, the meeting adjourned at about 11 p. m.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

A regular meeting of the Burlington County Medical Society was held at the Burlington County Hospital, Mt. Holly, on Wednesday, May 9.

The meeting was called to order at 1:30 p. m. by the President, Dr. Bauer, with 27 members and guests present; the latter including Drs. Buzby, Hunter, Diverty, of Gloucester County; Dr. W. E. Lee, of Philadelphia, Pa., and Dr. Imhoff, of Riverton.

The minutes of the previous meeting were read and approved. The Secretary then read a letter from the Gloucester County Medical Society inviting our society with its Woman's Auxiliary to attend their meeting on Thursday, May 23, at 2.00 p. m. to hear Dr. Morris Fishbein, Editor of the Journal of the A. M. A., talk on "Fads and Quackery in Medicine".

Two applications for membership were read and referred to the Board of Censors; Dr. Luther M. Hartman, of Mapleshade, and Dr. V. D. Marks, of Bordentown.

The society voted to celebrate the hundredth anniversary of its existence at its October meeting. The committee of arrangements consists of Drs. Stokes, Marcy, Newcomb and Anderson.

Dr. Rogers was instructed at the last Hospital Staff meeting to offer to any of the local doctors an opportunity to work in the mental hygiene clinic and venereal disease clinics.

The meeting was then turned over to Dr. Joseph M. Kuder, Chairman of Section on Surgery, who read a letter from Dr. William Mayo regretting his inability to be present, and then presented Dr. W. Estell Lee, of Philadelpia, to speak upon "Colored Moving Picture Demonstration of Laparotomy".

Dr. Lee said that he first commenced to take moving pictures of medical subjects in 1915. Now, the American College of Surgeons has standardized films for instructions especially to medical students. At first the pictures were in black and white but now the original colors are screened. The subjects presented were atelectasis simulating postoperative pneumonia, burns and technic of appendectomy.

Pictures of a severe burn case were shown, through different steps of treatment to autopsy. The technic of an appendectomy, both in black and white and in colors, was demonstrated. At the conclusion Dr. Lee was given a rising vote of thanks for a very enjoyable and instructive demonstration.

CAMDEN COUNTY

R. E. Schall, M.D., Reporter

The regular monthly meeting of the Camden County Medical Society was called to order by President Day at 9 p. m., May 14.

After the business meeting, the program called for a symposium on the Sheppard-Towner Act, later known as the Newton Maternity Bill. The Woman's Auxiliary had been given a special invitation and a goodly number of its members were present.

The visitors of the evening were Dr. Mulford, President of the State Society, and Dr. Henry O. Reik, Editor of the State Journal.

Dr. Julius Levy, Director of Child Welfare Work for the State Board of Health, and Dr. Ellen Potter, of Trenton, presented papers on the Newton Maternity Bill, showing the good and the evil effects of this law.

Dr. Reik entered into the discussion and explained why physicians in general are opposed to such laws as the Sheppard-Towner Act.

Dr. A. Haines Lippincott spoke in favor of the law.

Drs. A. L. Stone, G. P. Meyer, E. G. Hummel and A. J. Casselman also took part in the discussion.

At the close of the discussion, Dr. Meyer offered a resolution, that the Camden County Medical Society is in accord with the purpose of the Sheppard-Towner Act but opposed to the method pursued and, therefore, supports the American Medical Association in its opposition to extension or reënactment of this law; and this resolution was unanimously adopted.

Resolutions upon the Death of Dr. Davis

Whereas, we have learned of the sudden and shocking death of Dr. Henry H. Davis, a former fellow-practitioner, fellow-citizen, and hygienic mentor of our public schools, and deeming it to be our duty to testify to his personal and professional qualities, we have therefore,

Resolved, that, in his death, we and the City of Camden, have suffered the loss of one whose place cannot easily be filled; that

As a physician, we knew him to be sincerely devoted to his profession, self-sacrificing in his attitude toward his patients, open-minded and progressive in his relations with his fellow-practitioners, and one whose presence afforded them inspiration and cheer; that

As the Medical Director of our public schools, his generous instincts, keen sense of humor, and love of children, established a standard of performance for all holding similar public positions. His achievements in this field have carried his name beyond our local records, and added luster to a profession whose members yield to no others in devotion to their fellow-men, even to the point of cheerfully giving up their own lives in private practice, the laboratory, the hospital and on the battlefield; that

As a citizen of Camden, he was always a clear minded, and conscientious man, with a cordial and kindly manner that made friends for him wherever he went. He made his own world, a world which now mourns his passing, and will cherish his memory.

Be it further resolved, that these resolutions be spread upon our minutes, and that a copy be presented to his widow.

(Signed) Grafton E. Day., President,
Alexander Macalister,
Howard F. Palm,
John F. Leavitt,
Committee.

CAPE MAY COUNTY

Eugene Way, M.D., Secretary

The regular semi-annual meeting of the Cape May County Medical Society was held on Tuesday, May 14, 1929, at 11 a. m., at the Hotel Dayton, Wildwood. President Petitt presided and 35 members and guests were in attendance.

The Woman's Auxiliary also held a meeting, but adjourned in time to join the men at a famous Hotel Dayton luncheon.

Among the noted visitors present were: Dr. Ephraim R. Mulford, President of the New Jersey State Medical Society; Dr. James Hunter, former President of the state society; Professor Edward L. Bauer, of Jefferson Medical College; Dr. Louis D. Englerth, Surgeon to the Frankford Hospital; Dr. H. B. Diverty, of the New Jersey State Board of Medical Examiners; Col. Henry

O. Reik, Executive Secretary of the State Medical Society and Editor of the Journal; Dr. Ralph Laurie, of Philadelphia; Drs. Myatt and Moore, of Bridgeton, and Dr. Tracy, of Beverly.

President Mulford gave an interesting address on medical affairs of the state which showed progressiveness along all lines. He stressed the need of periodic health examinations, made preferably by the family physician; urged attendance at the meeting of the state society in June; and commended the Woman's Auxiliary.

Dr. Reik gave a splendid and comprehensive talk on the Journal; on state medical society affairs; and commented on the defeat of all pernicious medical bills that were introduced in the legislature at its last session.

Dr. Edward L. Bauer, Professor of Pediatrics in Jefferson Medical College, gave an address on "Some of the Surgical Emergencies in Pediatrics". His address was scholarly, interesting and instructive. He stated that appendicitis might occur at any age—from a few weeks to very old age—and recommended operating at an early stage, within 12 hours if possible.

Dr. Louis D. Englerth, Surgeon to Frankford Hospital, gave an illustrated lecture on "Congenital Hypertrophic Pyloric Stenosis". He urged early operating and showed by moving pictures the technic in removing tumors of pylorus.

These lectures were so practical and up-to-date in all respects that it is the desire of the society to have them published in full in the Journal of the state society.

The next meeting will be held in October; time and place to be selected by the President.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

The Essex County Medical Society was favored at its meeting on May 9, held at the Academy of Medicine of Northern New Jersey, Newark, by the presence of Dr. William J. Sweeney, President of the Hudson County Medical Society, and Dr. Frederick J. Quigley, of Union City, N. J.

Dr. Sweeney addressed the society, bringing a message of encouragement and comparing the problems of the neighboring societies.

Dr. Quigley explained to the society the reconstruction of the Constitution of the State Society, which will shortly be considered by that body. He explained the problems of revising the Constitution and By-Laws and drew attention to important changes in the new as they differ from the old law.

Dr. Wells P. Eagleton spoke in commendation of the attention that Dr. Quigley has given to this monumental work. He said Dr. Quigley was entitled to the gratitude and support of every member who has the welfare of the society at heart.

Dr. David A. Kraker commented on various sidelights of constitution revision and made some valuable suggestions.

The attention of this meeting (the last before the Annual Meeting of the State Society) was largely devoted to the problems of that body and preparation was made for proper representation of the Essex County Society. Fifteen members volunteered to attend the state society meeting as Annual Delegates, and the President, Dr. Richard N. Connolly was empowered to appoint the remaining 10 delegates to fill the quota of 25.

Dr. Frank W. Pinneo, the Secretary, read the minutes of the previous meeting and made a report of the last Council meeting.

Dr. Wells P. Eagleton, Chairman of the Hospitalization Committee, told of progress made toward informing the profession of the regular activities of all the hospitals in the county. He stated that every hospital in Essex County, with the exception of one, had listed its regular Department and Staff meetings and Clinics. This has been published in the Bulletin of the Department of Health in Newark in each issue; thus all interested are advised of all the regular activities of practically all the Essex County hospitals without expense to the county society. It is felt that this publicity is of great value to any of the profession desiring to visit the regular clinics and staff meetings and benefit by their wealth of clinical material. The idea of this Hospitalization Committee was conceived by the last President of the society, Dr. Max Danzis.

Dr. Elbert S. Sherman, Chairman of the County Welfare Committee, reported the cooperation of his committee with the State Society Committee in opposing bills detrimental to public health and to the welfare of our profession. There had been several bills introduced into the Legislature mostly aimed toward special privileges for the cults, but none of these had progressed far. In this connection, great credit was given to the assistance afforded by the Woman's Auxiliary of the County Society in preventing this type of legislation.

Dr. Alfred Stahl was elected a member of the State Nominating Committee, with Dr. Emanuel D. Newman as alternate.

Drs. Stahl and Wood served as tellers for the election of the following as members of the society: Drs. Ferdinand C. Dinge, Newark; Henry DeVincentis, Orange; Malcolm B. Gilman, Arlington; Edward Charles Jones, Montclair; Rhys Jones, Montclair; Wilbur M. Judd, Maplewood; Edward P. Levine, Newark; Albert E. O. Lynch, Montclair; John G. Merselis, South Orange; Edwin C. Mick, East Orange; Thayer A. Smith, Short Hills; John M. Steel, Newark.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

The Gloucester County Medical Society was host on the afternoon of May 23 to many physicians and their wives from neighboring counties, Women's Clubs and Service Clubs. It was an open meeting for all who desired to hear the nationally known speaker give his famous lecture. The meeting was held at the Woodbury Country Club.

Dr. Chester I. Ulmer, of Gibbstown, President of the Gloucester County Medical Society, presided over a short social meeting, calling on several visiting physicians. He welcomed the guests and then introduced Dr. Morris Fishbein, of Chicago, Editor of the Journal of the American Medical Association, who gave his ever popular lecture on "Fads and Quackery in Medicine."

The guests and society were honored by the presence of the President of the State Medical Society, Dr. Ephriam R. Mulford, and the Recording Secretary, Dr. J. Bennett Morrison, of Newark. Dr. Henry O. Reik, Editor of the State Medical Society Journal, was also present.

Following the meeting, President Ulmer tendered a testimonial dinner to Dr. Fishbein at the Walt Whitman Hotel, in Camden.

HUDSON COUNTY

M. I. Marshak, M.D., Reporter

The Hudson County Post-Graduate Tuberculosis Institute held during the week of April 22, 1929, was voted a huge success by those participating. It was given under the joint auspices of the Hudson County Medical Society, the Hudson County Tuberculosis League and Board of Managers of the Hudson County Tuberculosis Sanatorium, and was a part of the "Early Diagnosis Campaign".

A program of didactic lectures and clinical demonstrations was given as follows:

Monday. April 22, Pathogenesis—at Trudeau Hall, Laurel Hill.

Tuesday, April 23, The Normal and Pathologic Chest, Physical Diagnosis—Tuberculosis Clinic, Jersey City Hospital.

Wednesday, April 24, X-Ray Interpretation—at Jersey City Hospital.

Thursday, April 25, Differential Diagnosis—Tuberculosis Clinic, Jersey City Hospital.

Friday, April 26, Tuberculosis in Childhood—Tuberculosis Clinic, Grove Street.

Saturday, April 27, Individual Assignment of Cases—Hudson County Tuberculosis Sanatorium, Laurel Hill.

Success was achieved through the earnest efforts of the committee, under the able leadership of: Drs. G. P. Curtis, Chairman; G. Ginsberg, C. J. Larkey, L. A. Pyle and R. Stockfisch.

The following list of physicians also took part in the Institute: S. A. Cosgrove, I. Levine, P. E. Maras, H. Alexander, L. W. Bradenberg, J. M. Kolb, F. J. Quigley, D. R. Godlin, G. C. Lawsing, H. F. Tidwell, W. J. Sweeney, E. A. Cannon, H. J. Spalding, J. R. Commaratto, T. H. Lemmerz, G. W. Muttart, C. V. Neimeyer, A. Horadora, and J. M. Cassidy. The instructors were: Drs. B. S. Pollak, G. P. Curtis, A. E. Jaffin, M. I. Marshak, H. J. Perlberg, H. Borshaw, S. B. Barishaw and L. B. Faquier.

As this venture proved so successful, the committee is contemplating courses in dermatology and cardiology for the coming season. The Executive Committee, at its last meeting held on April 26, approved this suggestion and will recommend it to the society in May.

Bayonne Tuberculosis Clinic

M. I. Marshak, M.D., Reporter

Official opening of the Bayonne Tuberculosis Clinic was held on Saturday afternoon, May 18, at 3 p. m., with appropriate ceremonies. Delegations from various social service agencies, such as the City Welfare Department, the Women's Club, the Y. W. C. A., the Day Nursery, the Woman's Board, and the Board of Directors of the Bayonne Hospital, as well as the Tuberculosis nurses of the various county clinics, the Hudson County Board of Freeholders, the Board of Managers of the Hudson County Tuberculosis Sanatorium, the Tuberculosis Clinic Physicians, the Superintendents and Medcial Directors of the various hospitals in the county, also attended. Among the speakers were: Freeholder Catherine Brown, Drs. G. K. Dickinson, L. F. Donohoe, F. J. Quigley, G. H. Sexsmith, B. S. Pollak, A. E. Jaffin, H. Alexander, Miss Emma L. Allen, Mrs. L. Cadugan, Mr. B. Coleman, and Mr. W. G. Roberts. Dr. M. I. Marshak, of the Bayonne Clinic Staff, acted as master of ceremonies.

Progress of the anti-tuberculosis work in Hudson County was outlined in these talks, showing development from a 1 man clinic in Jersey City house basement, to the present system of 6 clinics with 17 physicians and 20 nurses in attendance, which system has been held up to the country by the National Tuberculosis Association as the ideal coördinated type of work best suited to combat the disease.

In the past 10 years 3605 new patients were examined; among whom 582 were tuberculous; 678 found negative; 2323 cases were held under observation; while 38,866 revisits to the Clinic were made.

In 1918, Bayonne had a population of 74,515 with 102 deaths from tuberculosis; a rate of 136.8 per 100,000 people. Ten years later, in 1928, Bayonne had a population of 95,318 with 45 deaths from tuberculosis; a rate of 47.2 per 100,000 people. This is the lowest tuberculosis death rate for any city of this size anywhere in the country. To envisage what this drop means, one must remember that if the 1918 rate had continued until 1928, there would have been 131 deaths in that year instead of the 45 that did occur, or a saving in this respect alone of 86 people in the most productive period of their lives. As the average life expectancy of this period is 30 years and the average production $2000. per year, this meant an actual saving of close to $5,000,000 besides the suffering of those ill and the breaking up of families which would have resulted.

A new era was predicted in a closer cooperation between the Tuberculosis Clinic and the Bayonne Hospital, with even better results than listed above.

Clinical Conference Bayonne Hospital

April Meeting

Maurice Shapiro, M.D., Secretary

The regular monthly meeting of the Clinical Conference of Bayonne Hospital was held April 1, at 10 p. m.; Dr. Donohoe, Chairman; Dr. Shapiro, Secretary.

Dr. Shapiro reported for Dr. Pinkerton a case of "enlarged cervical glands". A boy of 12 with about 6 glands palpable, one with a circumference about the size of an apple; others varying in size. History of appearance at the age of 3. No other glands of the body enlarged. Nasopharynx, tonsils, teeth and ears negative. Referred to Dr. Shapiro for ultra violet-ray treatment, he was given 16 general body radiations. Mass reduced in size from 14 in. circumference

to 13 in. Appetite and weight increased under treatment, but in consultation it was decided to remove the glands; operation on March 30 by Dr. Pinkerton. Microscopic examination showed chronic inflammation with preponderance of connective tissue cells, with here and there a few gland cells. At beginning of the treatment the blood picture was negative.

Dr. Madaras suggested this might have been a carotid tumor, but consensus of opinion was that the history and pathology were against this theory. General suggestion was: chronic adenitis.

Dr. Madaras recited the history of a man 35 years of age who had enlarged cervical glands, first on one side than the other, 1 yr. previous to the time he ordered the patient to hospital for observation; where the case was diagnosed as tuberculous adenitis with tuberculosis of the lungs. Biopsy showed the picture of tuberculous glands, but at that time Dr. Marshak did not approve the diagnosis, because no tubercle bacilli were found on section. Patient was sent to Laurel Hill, where he developed tuberculosis of larynx and esophagus and died within a few days of admission.

Dr. Harvey reported 2 cases of laryngeal tuberculosis with cervical adenitis where the patients lived only 3 or 4 months; both cases had terminal tuberculosis.

Dr. Ward suggested the use of x-rays for cervical adenitis, but admitted that all cases do not respond to x-rays.

Dr. Chayes declared that tuberculous glands should not be opened unless there are signs of acute inflammation with pointing abscess. He advised expectant treatment with ultraviolet radiation and claimed that absorption takes place.

Dr. Shapiro remarked that in acute adenitis and tuberculous conditions ultra violet radiation is helpful but that chronic cervical glands do not respond readily to ultraviolet treatment.

Dr. Donohoe advised against operation in parotid infection.

Dr. Roccas reported 2 interesting cases for Dr. Sexsmith.

Case 1. Man 34 years old, colored, admitted to hospital March 28, unconscious, with history of having fallen off a train. Bleeding from ear and nose. A working diagnosis of fractured skull was made. Next day patient, semiconscious, responded to questions; showed paralysis at angle of mouth right side. X-rays revealed fracture of parietal and temporal region. On third day paralysis in region of right eye, with signs of paralysis of deglutition muscles. Dr. Roccas localized the lesion as a fracture of petrous portion of temporal bone with clot near jugular foramen, as the paralysis of facial and glossopharyngeal nerves could only be accounted for by injury near this site. Dr. Donohoe requested Dr. Madaras to follow this case and at the next meeting to continue the report.

Case 2. Man 34 years old, Polish, with a history of pneumonia 5 months ago, followed by empyema; operated upon and left the hospital with a sinus. In 3 weeks, returned complaining of pain below operation site, headache and general malaise. Examination showed discharging sinus with dullness at the base and denseness in upper lung. X-rays showed abscess cavity. Operated upon 7 days ago; original rib incision was enlarged and rib above also removed, showing a deep cavity full of pus; drained; pressure applied over the incision with expectancy of obtaining adhesions of the parietal and visceral pleura.

Dr. Marshak remarked that the results in treatment of chronic empyema are not brilliant. He had treated chronic empyema by filling the cavity with 40% alcohol. While some cases showed improvement the cavity remained. At the J. C. R. S. in Denver the routine treatment was thoracoplasty, 4 to 6 ribs removed from bottom upward, going sometimes as high as the second rib, drain at lower end and pressure applied over the pleura. Results were fairly good in 6 months to a year, patients being able to return to work; while with temporizing treatment took 2 to 3 years, and then with persistent sinuses.

Dr. Donohoe remarked that in empyema of the adult most surgeons do not remove enough of the rib. He advised the wide removal of 2 ribs, with large drains, and immediate exercise of the lung to cause filling up of the abscess cavity by expansion of the lung.

May Meeting

Maurice Shapiro, M.D., Reporter

The regular monthly meeting of the Clinical Conference of the Bayonne Hospital was held May 6, at 9 p. m. in the Bayonne Hospital, with Dr. Donohoe as Chairman, and Dr. Shapiro, Secretary.

Dr. Shapiro presented 2 cases: (1) Lupus vulgaris on left cheek treated by coagulation with high frequency current; he demonstrated the thin scar and good cosmetic result. (2) Nevus Unius Lateris. Child, 9 years old, male, who presented himself with a warty eruption on wrist, right hand and nape of neck. On being stripped, patient showed a similar condition on right side of trunk, leg and arm; linear in character, apparently following the course of the nerves, and ending abruptly at median line of trunk both anteriorly and posteriorly.

Dr. Pinkerton reported 2 cases:

(1) Intestinal obstruction. Female, temperature 102°, constipated, distended abdomen, tenderness mostly over McBurney's point. Blood count negative. Given colonic irrigations with good result. Temperature came down and symptoms subsided. Next day recurrence of symptoms. Condition was relieved by high colonic irrigations. This course continued for several days. In consultation with Dr. Brooke, diagnosis of typhilitis was made. On sixth day patient became worse and was taken to the hospital. Barium enema given; an obstruction delineated by fluoroscope and plates at the hepatic flexure. Operation: found congenital bands at hepatic flexure; the adhesions were cut; there was gaseous gurgling at the obstructive portion of the bowel. Next few days temperature kept up; patient appeared worse; given pituitary and colonic irrigations; passed pus and feces. One week postoperative developed a fecal fistula, but patient is greatly improved and present condition good. (2) Ectopic gestation. Young woman, white, 26 years old. Menstruation had always been regular; last period not due when she was taken with violent cramps in lower abdomen, intermittent for 3 weeks; with each

cramp had a slight bloody discharge. Examination showed a soft mass in right side. Blood picture was negative. Catheterized urine negative. In consultation, Dr. Donohoe advised operation. Before operation barium enema was given and radiogram taken; no sign of obstruction. There appeared to be a pushing of the sigmoid to left and mass extending to false pelvis on right side close to uterus. At operation found uterus enlarged, swollen, not freely movable, and a mass in right side ½ inch in from cornu of uterus, which had ruptured and was bleeding; pelvis was full of blood clots. The mass in broad ligament was removed and repair work done.

Dr. Larkey showed several interesting plates of a gall-stone case, showing 6 distinct large stones. Gall-bladder did not accept the dye, because of chronic inflammation. He explained visibility of the stones by saying that they were calcified.

Dr. Frank reported on 3 interesting cases: (1) A very interesting case of a child 11 years old, female, well nourished and well developed. For the past 6 years the mother had noticed that the child walked in a peculiar manner. On close questioning it developed that the child had never walked properly from infancy. There is a bulging, hard, bony mass over the internal condyle and interior surfaces of both knees. Radiograph revealed patellas to be congenitally dislocated internally. An abnormal condition also existed in the feet; the fifth metatarsus in the left foot shorter than the other bones, as was also the third and fourth on the right foot; also webfooted; the hands in a similar condition. Dr. Frank does not advise operative interference in this case, as there would not be any functional improvement in use of the limbs. (2) Cast of Osgood Schlatter disease, x-ray plates presented. Girl 12 years old, giving no history of injury. Two weeks previous to observation began to complain of pain in left knee. X-rays revealed tearing away of tubercle of tibia and dipping of the epiphysis on the condyle into the space thus formed. Cause of this condition not known, but it is believed to be osteochondritis; in the present case caused probably by a strain, such as twisting the foot. (3) Another case of Osgood Schlatter disease. Girl 10 years old, with a similar condition in right leg. X-rays showed injury to tubercle of tibia and demonstrated the difference that where there is trauma to the tubercle there is no dipping of the epiphysis. Treatment is immobilization, 4 to 6 weeks, to permit healing. Some authorities claim this condition is early tuberculosis or late rickets.

Dr. Donohoe showed x-ray plates of an adult with a similar condition, revealing a crushing and not separation of the tubercle and no dipping of the epiphysis.

Dr. Higgins reported 2 cases from the services of Dr. Donohoe. (1) Girl 15 years old, admitted April 15, with a history of lancinating pain over lower abdomen; sudden increase in pain, with vomiting; pain to right side and slight rigidity. Blood count 10,500; polymorphonuclears 80%; temperature 102°; pulse 106. At operation abdomen was found full of blood, large cyst with hole in center as if it had been incised, from which the blood was flowing. Cyst and appendix removed. Patient made an uneventful recovery. (2) Man, 59 years old, sent to the hospital with a diagnosis of diabetic gangrene on dorsum of right foot covering an area 3 by 5 inches and dry in character. Patient was given citrate and baking, but the gangrene spread, finally involving the toes. The usual dietetic treatment plus insulin kept him sugar-free and blood sugar low, but did not in any way improve the gangrene. Radiograms of both legs showed calcification of the large vessels of right foot and leg. Dr. Donohoe amputated the leg at mid-lower third of femur. Patient did well for 6 days, then suddenly turned blue, gasping for breath, and died.

In the discussion which followed, the recent work of Allen and Joslin was quoted as showing that 87% of diabetic gangrene in the fifth decade shows arteriosclerosis with calcification; 53% in the fourth decade; 33% in the third decade. As to cause of death in the case cited, it was suggested by Dr. Dolganos that coronary disease might have been responsible. Others were inclined to believe that it was a thrombus breaking away from a blood-vessel that caused the death.

Dr. Madaras reported a case of Dr. Donohoe. Woman aged 31, admitted to hospital April 10 complaining of pain, a tingling sensation, and feeling of warmth in right leg and toes. One week previously had influenza and after several days complained of loss of sensation. Examination showed a woman well nourished; did not appear acutely ill; temperature slightly above normal; right leg showed 3 bluish-black discolorations and felt cold to touch, and toes were black with dry gangrene. Blood count 85% hemoglobin; red cells 4,495,000; leukocytes 8000; polymorphonuclears 80%. Urine showed a few pus cells but no sugar. Wassermann negative. Temperature never above 100°. Occillimeter reading showed no pulsation in right leg, ½ on right arm; left arm showed reading 1½ to 2 (normal 6 to 8). Absence of radial pulse right side for 3 weeks, then reappeared. Case discussed for diagnosis. Owing to the involvement of right arm and leg a suggestion of neurotrophic disturbance was made, after Raynaud's disease and Burger's disease and thrombosis had been eliminated.

Dr. Dolganos reported 2 cases from the medical services. (1) Boy 15 years old, on April 11 began to complain of headache, continuous for 9 days, then becoming more intense, vomiting and showing rigidity of neck. On admission to hospital he showed retraction of head; Kernig positive; hypersensitive to pressure; hyperresonance over right parietal region: temperature 100.8°; pulse normal. Spinal fluid showed 1600 cells with meningococcus. Patient was given meningococcus serum, intravenously 3 times a day. Three days later spinal fluid showed only 200 cells, and 5 days later 1200 cells. Further injection of the serum brought sterility of fluid, patient steadily improved, and was shown at the meeting entirely cured. (2) Boy with a similar history and, after 4 spinal taps were taken and injections of serum given, was cured.

Dr. Marshak in discussing the case accentuated the hyperresonance as a diagnostic sign and said that at the J. C. R. S. in Denver, in their acute meningeal and tuberculous meningeal cases, the hyperresonance showed them on which side the lesion existed. In those cases where the hyperresonance disappears a cure takes place. The consensus of opinion was that injections of serum into the spinal canal, given every 4 hours if necessary, would cause no harm and do a lot of good.

Meeting adjourned at 11 p. m. Those present

were: Drs. Murray, Forman, Frank, Pinkerton, Higgins, Marshak, Ferenczi, Fifer, Weiss, Madaras, Morganstein, Werin, Dolganos, Sexsmith, Meltzer, Brooke, Shapiro, Donohoe, Williamson, Marowitz, Chayes, Tepper, Lipshutz, Solomon, internes and Mr. Mass.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Medical Society met in the Carteret Club, May 8, President Seely in the chair. Following reading of the minutes, Dr. Seely introduced Dr. J. Alexander Clarke, of Jefferson Medical College, who spoke on the "Treatment of Hay-Fever".

Dr. Clarke interestingly rehearsed the early investigations of Drs. Blackley, Cook and Walker in this particular disease. The classification of hay-fever into seasonal and the nonseasonal types was explained; with subdivisions of the seasonal into (1) spring type, (2) early summer, (3) late summer. The several groups of pollen, with methods of distribution, were most thoroughly described. Lantern slides and charts were displayed showing the varying grades of severity of the different types of the disease in certain sections of the country.

The treatment, Dr. Clarke described as being one of "hyposensitization"—preseasonal and coseasonal. Following a detailed account of the dosage, with gradations, and emphasis placed upon the first and last dose, Dr. Clarke gave 3 reasons for treatment failure; (1) potency, (2) drugs used, (3) diagnosis; stating that overdosage was worse than underdosage, this alone often causing failure.

The subject was discussed by several members, and Dr. Clarke was tendered a rising vote of thanks.

MIDDLESEX COUNTY

William C. Wilentz, Reporter

The regular monthly meeting of the Middlesex County Medical Society was held May 15 at the Middlesex General Hospital, New Brunswick, with Dr. Spencer presiding.

Dr. Coughlin, of Kearny, was given a transfer to the Essex County Medical Society. Resolutions were made upon the death of Dr. Riva, of South River. Alternate delegates to the State Society Convention were appointed. Drs. Eulner, of South Amboy, and Walker, of New Brunswick, were elected to membership.

Dr. Frank C. Henry, Jr., gave an interesting account of a case of "Cavernous Angioma" of the face upon which he had operated.

Dr. Nafey spoke of his recent trip to the Mayo Clinic.

PASSAIC COUNTY

F. W. Ash, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held May 9 at the Alexander Hamilton Hotel in Paterson. It was regularly moved and seconded that the usual business be postponed and the dinner and scientific session be in order. The dinner served at 6:30 p. m. was attended by 100, including our guests of honor from out of town. The scientific session began at 8:15 and was attended by about 250 members and guests.

The subject of Dr. Francis Carter Wood's address was "The Changing Attitude of the Public, Medical and Lay, Toward Cancer".

UNION COUNTY

Summit Medical Society

William J. Lamson, M.D., Secretary

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines on Tuesday, April 30, at 8:30 p. m., with Dr. Milligan entertaining. In the absence of President Krauss, Dr. Keeney was appointed to act as Chairman.

Present: Drs. Baker, Bensley, Bowles, Burritt, Byington, Dengler, Disbrow, Eason, Hallock, Keeney, Lamson, Lawrence, Macpherson, Meeker, Milligan, Morris, Pollard, Reiter, Smalley, Tidaback and Wolfe; and the following guests: Drs. Messina and Schley, of Summit; and Dr. Allis, of Basking Ridge.

Minutes read and approved.

The paper of the evening was read by Dr. Paul Menk, of Newark, on "Genito-Urinary Diseases". He presented many lantern slides of different lesions in this tract, with x-ray findings, and described the symptoms, treatment, etc. The paper was freely discussed.

THE PART OF THE PUBLIC

We hope that in its deliberations on the cost of medical care this committee on medical costs will consider both sides of the question thoroughly and fairly. No doubt if this is to be a real fact finding investigation some interesting disclosures will be made. We do not expect that the profession will be whitewashed and we are certain that doctors will consider seriously any faults that are disclosed and make honest efforts toward their correction. What we expect in addition, however, is an enumeration of the shortcomings of the lay public, such, for example, as the general failure to make proper provision for medical care with the expectation that it should be rendered at little or no cost.

That there are faults on both sides no one can deny but it seems that within recent years those of the profession have been emphasized to the point where the doctor has come to be considered so great a menace to those laymen who have been making arduous efforts to save enough with which to meet payments on their radio sets and automobiles, that every means of curtailing his income has been brought into play, and this while everyone extols his value to the community he serves.

It is high time that publicity be given to the shortcomings of the lay public in their dealings with the profession. In fact, an educational campaign involving as thorough and as broad a dissemination of information (not propaganda) on the economic phases of the practice of medicine might be undertaken (after the committee on medical costs has disclosed all of its findings) with great benefits resulting to everybody.

The situation is indeed worthy of investigation and while we realize that the task is no simple one we hope that the committee will make a thorough job of it by disclosing as many of the facts as it can, so that misunderstandings which are now so prevalent can be equitably adjusted.—Bulletin of the Wayne County Medical Society.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Ephraim R. Mulford.....Burlington
First Vice-President, Andrew F. McBride.....Paterson
Second Vice-President, George N. J. Sommer.....Trenton
Third Vice-President, John F. Hagerty.....Newark
Corresponding Sec., William J. Carrington....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Norton L. Wilson, *Chairman*.....Elizabeth
James Hunter, Jr., *Secretary*.....Westville
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
Lucius F. Donohoe.....Bayonne
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires, 1932	George H. Lathrope, Newark
Second District	" " 1931	B. S. Pollak, Secaucus
Third District	" " 1930	Martin W. Reddan, Trenton
Fourth District	" " 1929	Paul M. Mecray, Camden
Fifth District	" " 1933	J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

W. E. Darnall, Chairman.....Term expires 1929
R. K. Hollinshed..... " " 1930
Lancelot Ely..... " " 1931

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City.....Term expires 1929
J. Finley Bell, Englewood..... " " 1929
Thomas B. Lee, Camden..... " " 1930
Henry Spence, Jersey City..... " " 1930
H. Garrett Miller, Millville..... " " 1931
Harvey S. Brown, Freehold..... " " 1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty.....Term expires 1929
B. S. Pollak..... " " 1929
W. Blair Stewart..... " " 1930

Alternate Delegates

George H. Sexsmith.....Term expires 1929
Philip Marvel..... " " 1930
S. B. English..... " " 1930

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark.....Term expires 1930
Edward J. Ill, Newark..... " " 1929
J. Bennett Morrison, Newark..... Ex-officio
Ephraim R. Mulford, Burlington..... Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*.....Term expires 1933
Paul M. Mecray..... " " 1934
John Nevin..... " " 1929
B. S. Pollak..... " " 1930
H. Garrett Miller..... " " 1931
Thomas W. Harvey..... " " 1932
Elias J. Marsh, *Treasurer*..... Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton.....Term expires 1931
William G. Schauffler, Princeton..... " " 1929
William D. Olmstead, Atlantic City..... " " 1930
Ephraim R. Mulford, Burlington..... Ex-officio
J. Bennett Morrison, Newark..... Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Foxman.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
Ralph K. Hollinshed.....Westville
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
James S. Green.....Elizabeth
Edward Guion.....Northfield
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
George H. Lathrope.....Morristown
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
B. C. McMahon.....Morristown
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark
George T. Tracy.....Beverly
Clarence W. Way.....Sea Isle City

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.

MOUNTAIN VALLEY WATER *from* HOT SPRINGS *Arkansas*

The Doctor's Preference for a Non-Irritating Diuretic

Mildly Alkaline -:- Natural -:- Pleasant Tasting

Mountain Valley can be consumed in quantity and relished. It is easily assimilated and a palatable agent for flushing all four of the emunctories.

Newark, N. J.
92 Central Ave.
MARket 8890

Mountain Valley Water Company
Distributing Branches in all Principal Cities

New York, N. Y.
142 E. 25th St.
GRAmercy 1666

THE N.Y. ACADEMY OF MEDICINE
JUL 29 1929
LIBRARY

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103. Act of Oct. 3, 1917, authorized July 29, 1918

Vol. XXVI., No. 7. Orange, N. J., July, 1929 Subscription, $3.00 Per Year Single Copies, 30 Cents

CONTENTS

ORIGINAL ARTICLES— Page

Caudal or Epidural Anesthesia—Dr. D. F. Bentley, Jr. 503

Subarachnoid Block Analgesia—Dr. Irvin E. Deibert 504

Experiences and Observations Concerning Spinal Anesthesia—Dr. Benjamin Borow 507

The Use of Artificial Pneumothorax as a Hemostatic in Advanced Pulmonary Tuberculosis—Drs. Samuel B. English and Feivel O. Slavutsky 508

ORIGINAL ARTICLES— Page

Some Problems in the Diagnosis and Treatment of Laryngeal Cancer—Dr. Fielding O. Lewis 519

Pain in the Low Back Caused by Structural Variations in the Spine—Dr. Alan DeForest Smith 523

Arteriosclerotic Heart Disease—Dr. Harold E. B. Pardee 527

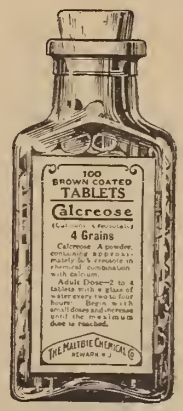
The Prevention and Treatment of Scoliosis —Dr. A. M. Rechtman 533

Continued on page VI.

All Through The Summer Months

Calcreose is the "stand-by" of many physicians when they require an intestinal antiseptic embodying the effectiveness of creosote.

Every physician reader of this Journal who is not familiar with the value of Calcreose in the treatment of enteritis and other intestinal disturbances during the summer months is invited to clip out and return the bottle opposite for liberal, complimentary test.



The MALTBIE Chemical Company, Newark, N. J.

MALTBIE Calcreose

Mead's Dextri-Maltose

THERE is a unanimity of opinion among physicians upon the use of Mead's Dextri-Maltose.

It is shared alike by the pediatrist whose practice is confined exclusively to the feeding of infants, and the general practitioner whose work covers a multitude of different cases.

An abundance of clinical evidence has proved it is well tolerated, easily assimilated and generally productive of satisfactory results. In combination with various cow's milk and water modifications it has probably *successfully* been used to feed more infants than any other carbohydrate offered the medical profession.

A few infants can tolerate *any* carbohydrate. But *any* carbohydrate can not be fed all babies under all conditions. The success characterizing the use of Mead's Dextri-Maltose in the combined experience of infant feeders is that it will successfully feed *more* infants than any other now in use.

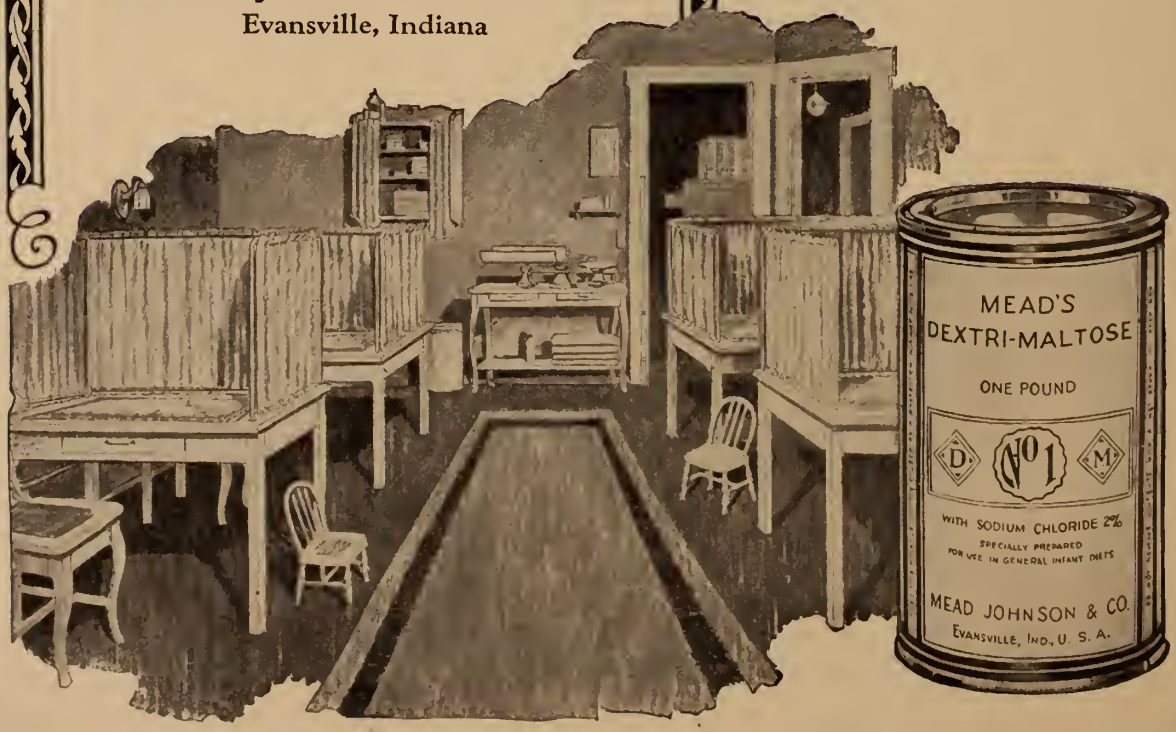
Sample and Literature on Request.

MEAD JOHNSON & CO.
Evansville, Indiana

MEAD'S

THE MEAD POLICY

MEAD'S infant diet materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.



Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 7 ORANGE, N. J., JULY, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

CAUDAL OR EPIDURAL ANESTHESIA

D. F. Bentley, Jr., M.D.,
Camden, N. J.

The use of caudal or epidural injection of novocain to induce anesthesia in the perineum, about the anus, rectum, prostate or deep urethra, and floor of the bladder, has given us an anesthetic free from danger, with no distorted relations or lowered vitality due to infiltration, and relieving to no small extent the postoperative pain so common to operations in this area.

In 1900, Cathelin injected the sacral canal in the treatment of enuresis, and experimented with this method for anesthesia in animals. It was not until 1909 that it was successfully used by Stoekel as a means of anesthesia in labor. It was first used successfully for surgical procedure by Lawen, in 1910. Since that time it has been used extensively by Labat, who has probably done as much as anyone to popularize this method. In recent years it has been used very frequently as the anesthesia of choice for urologic operations, and Lowsley, Shaw, Young and many others have reported large series of cases in which it has been used successfully and without any untoward results.

Caudal anesthesia is induced by inserting a needle through the sacral hiatus into the sacral canal, and injecting a quantity of anesthetizing fluid about the sacral nerves. The sacral hiatus, through which it is necessary to introduce the needle, is at the lower extremity of the sacral canal, and is formed by the failure of fusion of the laminæ of the fifth sacral vertebra. It is covered by the sacrococcygeal membrane, a dense fibrous covering which is stretched between the coccyx and the sacrum. The hiatus is bounded by the sacral cornu on either side, and the tip of the spinous process of the fourth sacral segment above. It is often described as an inverted V or U, and may readily be felt in thin subjects. In stout patients, where the anatomic landmarks cannot so readily be palpated, it may readily be located by constructing an equilateral triangle, using a line drawn between the posterior superior iliac spines, as a base, and directing the apex downward. The apex of such a triangle is usually immediately over the hiatus. This method was first described by Mummey, in 1925, and was carefully proved by many measurements of anatomic preparations.

The sacral canal is filled with loose fatty tissue, rich in blood vessels, and communicating freely with the epidural space above. In the areolar structures so formed rest the sacral nerves, the coccygeal nerves and the terminal filament.

The technic, as described by Labat, and to which we usually adhere closely, is as follows: The patient is directed to lie on his abdomen, and the hips are raised by aid of a folded pillow. This raises the sacral region and makes the anatomic landmarks more readily palpable. The sacral hiatus is located and a single wheal of anesthesia is produced immediately above it. The needle is then

passed down to and into the sacrococcygeal membrane, and a small amount of solution injected. A fairly fine lumbar puncture needle (No. 20 gauge) is then inserted through the hiatus and into the sacral canal. As the needle passes through the sacrococcygeal membrane there is usually a slight give, much as is felt when passing through the intervertebral region when performing lumbar puncture, and the heel of the needle is depressed; after which it is easy to advance the needle into the sacral canal. The stylet is removed and the needle aspirated with an empty syringe, so as to make sure that the dura has not been penetrated, because to introduce into the spinal canal the large quantities of novocain used in this procedure would probably produce unpleasant symptoms; and 20 c.c. of a freshly prepared, sterile novocain solution of 2% strength is slowly injected. Anesthesia is usually prompt, although we have made a practice of waiting 15 minutes before beginning an operation.

Two years ago we reported a series of 170 cases of anesthesia so induced, and our failures were slightly less than 6%. Since that time we have performed it frequently, the present series including nearly 500 cases, and we have as yet to find any really serious drawback to its use. At the present time we do rectal surgery under a general anesthetic only when the patient especially requests it, or seems too nervous and excitable to permit an operative procedure while awake.

The use of this method in cystoscopy and in operative cystoscopic work is today practically universal, and most of the lesser perineal operative measures are simplified and made many times safer by not requiring anesthesia by inhalation.

Perineal urethrotomy, implantation of radium and radium seeds to the prostate, prostatic bar excision, and even prostatectomies are now being done under this form of anesthesia with a far greater degree of safety than was the case only a few years ago.

SUBARACHNOID BLOCK ANALGESIA

Irvin E. Deibert, M.D.,
Camden, N. J.

Surgeon, Cooper Hospital; Attending Surgeon, Camden County Tuberculosis Hospital, Lakeland; Chief Surgeon, Camden County General Hospital, Lakeland, N. J.

Spinal anesthesia, or more aptly subarachnoid block analgesia, was first suggested by Corning, in 1885, after experimental spinal puncture on dogs. He did not produce anesthesia but his experiments did prove definitely that the spinal subarachnoid space could be tapped with comparative ease and safety.

In 1889, Bier, of Germany, obtained anesthesia by injecting solutions of cocain into the spinal subarachnoid space. As is characteristic of the courage of all pioneers in medicine, he first had his assistants try the procedure on himself and he in turn experimented upon them, until finally, when they felt that it was comparatively safe, they injected the solution into the spinal canals of several patients. Thus was born spinal anesthesia. Tait and Caglieri are generally supposed to have been first to operate with this type of anesthesia, although Rudolph Matas, of New Orleans, was the first American surgeon to report such a procedure.

During the next few years results were extremely varied, some successful, and not a few fatalities were reported, probably from toxicity of the cocain. In 1891, Giesel, of Germany, had isolated tropocain, with a toxicity of about one-half that of cocain, and quite a few surgeons advocated this drug, but still the results were varied and gradually this method of anesthesia fell into disuse. In 1904, Forneau, a French worker, discovered stovain and once again spinal anesthesia was brought to attention of the profession. During the same year, Einhorn discovered novocain, and both these drugs were extensively used for a time, but finally novocain was dropped for stovain.

The anesthesia produced by these drugs was practically always excellent but was usually accompanied by terrifying symptoms, some

untoward results, and sometimes death. At times patients vomited, became pulseless, respiration failed and death ensued. These distressing symptoms and sudden deaths were attributed to 2 causes; toxicity of the drugs used and to an ascending of the anesthetic in the spinal canal up to the cardiac and respiratory centers producing paralysis of these centers. Great credit must be given to such men as Labat and Babcock who, during the past few years, have worked out a better understanding of the physiologic action of these drugs in the spinal canal; which has done much to rob this type of anesthesia of its terrors.

When an anesthetic solution is injected into the spinal subarachnoid space it soaks the nerve roots as they leave the spinal cord and blocks both afferent and efferent paths; impregnation of a certain thickness of the white substance of the cord may also ensue; transmission of sensory and motor impulses is interrupted in the territories supplied by the blocked nerves; vasomotor fibers contained in the anterior roots of these nerves and destined to control tonus of the blood-vessels are also interferred with, thus paralyzing to a certain degree the musculature of the arteries. The splanchnic vascular system is consequently relaxed in proportion to the number of nerves blocked in the subarachnoid space. If diffusion of the anesthetic extends from the fifth thoracic to the third lumbar nerves, the abdominal vessels are relaxed, engorged, and take more blood at the expense of the peripheral vessels; if the second, third and fourth thoracic nerves are also involved, the vascular system of the entire body is relaxed.

With a definite understanding of these important physiologic facts, it immediately becomes evident why the fall in blood pressure, why the slow or almost imperceptable pulse, and the various vasomotor and respiratory disturbances occur. It will also be explained why the various vasomotor stimulants fail to act.

The dependent portions of the body become the richest in blood; the most elevated the poorest. If the head is kept elevated, the brain suffers from an acute anemia which results in respiratory disturbances ranging from the classical embarrassment of air hunger to the ever dreaded respiratory failure.

Once again it is necessary to call attention to the fact that all of these symptoms were originally ascribed either to toxicity of the drug used or to an anesthetization of the bulb including the cardiac and respiratory centers. The blood-vessels of the brain, besides being terminal, are not supported by muscles and aponeuroses, as in all other regions of the body, and their lumen can not be kept wide open unless constantly fed by circulation. Lack of blood in these vessels results in complete collapse and may cause death by cardiac or respiratory failure. Prolonged impoverishment of their blood supply induces a partial collapse which may carry the patient to his death in a comatose or semiconscious condition. This is definitely believed by Labat and others to be the mechanism which causes cardiac and respiratory failure and death.

Again, with this understanding, it is obvious that the Trendelenburg position is the only means of keeping the brain and vital centers well supplied with blood. All operators have repeatedly observed that their patients did better in the Trendelenburg position and respiratory failure very rarely occurred if that position was maintained during and for some time after operation. It necessarily follows that no anesthetic solution should be used which precludes use of the Trendelenburg position.

With the exception of Dr. Pitkin's solution of novocain, the level of anesthesia is not disturbed by posture of the patient. Clinical experience proves that the extent of anesthesia varies chiefly with the pressure with which the injection is made and the extent to which the intraspinal pressure has been lowered before the injection; this fact we have definitely proved in our own cases.

Inability to make blood pressure readings at the arm or to feel a wrist pulse is indicative of laxity of the vascular system. The peripheral resistance having been decreased by blocking of the sympathetic system, it is not surprising that the energy of the heart beat is diminished or that frequency of the pulse is likewise modified. The heart, having light work to perform, actually takes a rest

during spinal anesthesia; for this reason if no other it is the method of choice in all cases complicated by cardiovascular disease. And, by reason of the fact that both afferent and efferent impulses are blocked at the cord, it becomes at once the true annoci-association of Crile.

The recent discovery of ephedrin and its injection preliminary to that of spinal anesthesia has done much to combat the decided fall in blood pressure and to place this type of anesthesia on a firm and safe basis.

The indications for spinal anesthesia are: any operation below the costal margin where it is desirous to lessen the danger of shock or avoid postoperative pulmonary complications.

The contraindications are: cerebrospinal lues, tumors of the cord or brain, and persistent blood pressure below 100 systolic.

Preoperative preparation of the patient is that of any general surgical procedure except that it is not necessary to starve him of fluids and food. One hour before operation our patients are given morphin sulph. with atropin, the dose according to the age and type of patient. This is repeated at the time of operation if the patient is extremely nervous or apprehensive; some surgeons always include scopolamin but we believe it to be unnecessary and dangerous.

The patient is purposely not enlightened as to the type of anesthetic though he is sometimes told that he is about to have an injection in the back which will make his legs feel numb; aside from this we believe that the less one talks of the procedure the better. The patient is blindfolded; the ears stopped with cotton; blood pressure apparatus is adjusted; he is turned on his side with back arched toward the operator; the skin is sterilized with tincture of iodin and the site is sterile draped; a site at the second lumbar interspace or below is selected and is anesthetized with a solution of 2% novocain and a preliminary injection of 1 c.c. ephedrin sulphate 3% is made under the skin. Puncture is made with a small blunt-pointed needle, preferably 20 or 22 gauge; pressure of the spinal fluid is noted and if low 25 or 30 drops are allowed to escape; novocain dissolved in 2-3 c.c. of cerebrospinal fluid is drawn up in a sterile syringe and reinjected into the subarachnoid space. The patient is then immediately turned on his back and placed in the Trendelenburg position. Anesthesia is usually complete by the time this step is finished, and will last on an average for 1 hour; it wears off very rapidly, in fact almost instantly.

As a general rule, for abdominal operations the dose of novocain may be calculated on the basis of 10 mgm. per 15 lb. of body weight but this will vary according to the time length and degree of anesthesia desired. The degree of dilution of the anesthetic agent and the degree of pressure exerted on injection are factors that can only be acquired by personal experience.

The "psycho-anesthetist", as she is sometimes called, should sit at the patient's head, administer to his wants, carry on a diverting conversation if necessary, and she may also take blood pressure readings. If the patient complains of nausea he should be instructed to breathe deeply, which usually suffices to clear up this disagreeable symptom; if it persists a few inhalations of oxygen may be administered to advantage. Cold, wet towels about the face and neck are very comforting, as is also an occasional sip of cool water.

Immediately following operation the patient is returned to bed and kept in the Trendelenburg position for at least 3 hours; fluids can be given immediately and cases that are not of a peritonitic nature may be started on a semisoft diet without further delay.

Advantages of this type of anesthesia are obvious. The disadvantages are: That there is a time limit on the anesthesia; an occasional failure to get anesthesia; the extremely nervous patient is a poor subject unless heavily narcotized; and, finally, to some there may be difficulty in doing the lumbar puncture. The complications are we believe mainly myths; no trouble should be encountered if the lumbar puncture is kept below the first lumbar interspace, for it is there that the conus medullaris usually terminates.

In conclusion, I wish to state that this paper

is not intended to be considered as original in the sense of presenting new and startling facts; it is simply an attempt to bring before you what we believe to be the important fundamental points of spinal anesthesia.

EXPERIENCES AND OBSERVATIONS CONCERNING SPINAL ANESTHESIA

Benjamin Borow, M.D.,
Bound Brook, N. J.

General anesthesia is very dangerous and cannot be used in certain cardiac, pulmonary, hepatic or renal diseases, such as cardiac decompensation, hypertension, bronchitis, asthma, nephritis, anemia, diabetes, eclampsia, general peritonitis, pneumonia, and pulmonary tuberculosis. In these conditions the organs may be already badly damaged and taxed to their utmost; by adding another toxic substance, such as ether, to tax them still more, the patient's chance of survival is endangered. At best, he has a stormy postoperative period with complications, causing many an anxious moment.

The exact number of deaths due to ether will never be known. The immense number of postoperative complications, which have impaired the subsequent health of the patient, has never been minutely considered. Statistics show one death for every 5900 ether anesthesias, but one must remember that this classification is primary; most ether deaths occur from a few hours to 5 or 6 days after the anesthesia.

At present, some surgeons use spinal anesthesia only for patients who are poor operative risks. If it is of value in this type of case, because it has no effect on the respiratory, cardiac, renal or hepatic systems, it surely should be of value in favorable cases, because it will entail no embarrassment or insufficiency of these organs.

Rygh and Bessessen have collected from recent literature 250,895 administrations of spinal anesthesia with 75 deaths. In Babcock's clinic, in Philadelphia, there were no deaths in the last 10,000 inductions. John B. Deaver uses spinal anesthesia in 85% of his work. Dr. A. A. Berg uses it as his method of choice. Sisse is using spinal in all abdominal and lower extremity work in Lahey's clinic, in Boston. Labat has induced spinal anesthesia in thousands of cases in many large clinics in this country and abroad, without a fatality. I could go on and give the results in many other large clinics, because most men are realizing the injurious effects of ether and are drifting away from it. Spinal anesthesia is a safe and valuable method, growing rapidly in popularity, and no doubt within the next few years will be used universally. My own experience with 110 cases, no fatalities nor symptoms causing marked annoyance, and my observation of many others in different clinics, assures me that it is the anesthesia of choice in the majority of cases.

Spinal anesthesia has a great many advantages. Patient does not have to dread loss of consciousness, which many patients fear. He may even aid during the operation; some time ago I had a patient with a small thin inguinal hernia sac and while operating I asked the patient to cough, and immediately the sac was apparent. The anesthesia is perfect, and relaxation is complete. The gastrointestinal tract is quiet; the intestines drop away from the operative area; no fighting or struggling with the patient or his intestines to keep them in the abdominal cavity or away from the site of operation. Very little packing is required; walling off or holding retractors forcibly is unnecessary. Under such conditions we can work better and more rapidly and do less trauma to the viscera. There are no after-effects upon the heart, lungs, or kidneys; therefore, the patient is more comfortable and convalescence is more rapid. Our patients are able to be about and return to their occupations more rapidly than in the past. Nausea and vomiting are rare; if such disturbance does occur, it usually is of a psychic nature and not caused by the anesthetic. We do not have distention or uncomfortable gas pains as so often noted with a general anesthetic. What surgeon has a record of 100 surgical cases without a lung or kidney complication due to ether anesthesia?

Formerly, I generally found it necessary to give postoperative stimulation, and preparations to combat tympanites for my abdominal cases after ether administration, such as digalen, strychnin, eserin, pituitrin, and enemas; no fluids for 24-48 hours. Spinal anesthesia has done away with all of this. No orders are necessary; patient may have sips of water while he is on the operating table, and when he returns to his bed fluids are not withheld; he is encouraged to take light nourishment in 24 hours. The foot of the bed is raised 12-14 in. for 2 hours and that is all the necessary postoperative care. If the patient is of an asthenic type, we give a hypodermoclysis of 1000 c.c. 10% glucose in saline.

I have given you the beautiful side of spinal anesthesia, but it has some disadvantages and contraindications. If the blood pressure is down to 100 and with treatment cannot be raised to maintain a higher systolic, then spinal anesthesia is dangerous. The greatest fear of spinal in the past has been the great vasomotor depression. With the recent discovery of ephedrin, a vegetable preparation having the same action as adrenalin but effective for a longer time, this fear has been eliminated. Hysteric or very highly neurotic individuals are poor subjects. We cannot definitely control the duration of anesthesia, but it usually lasts from 45 minutes to 1½ hours; average time about 55 minutes. If the abdomen is open and the anesthesia is beginning to disappear we can give a small quantity of ether to finish.

Diseases of the spine that prevent introduction of the needle, and skin disease over site of puncture that would cause danger of carrying infection into the canal, are contraindications. Also, I believe it is impossible to get the full confidence of patients younger than 12 years; we have used the method on 2 patients at the age of 14. Another disadvantage is the extreme importance of having a specially trained anesthetist or the surgeon himself responsible for the anesthesia.

As you see, these disadvantages are not of great detriment to wide use of spinal anesthesia. Not having a perfect anesthetic, the spinal procedure is suitable for the greatest number of operations.

The technic of administration has been published so often that it seems superfluous to repeat it here. We generally employ morphin and scopolamin one hour before time set for operation, and use the Pitkin needle for making intraspinal injection of anesthetic; the French preparation of neocain (0.10 to 0.12 gm. dosage according to whether patient is less or more than 130 lb. weight) being preferred.

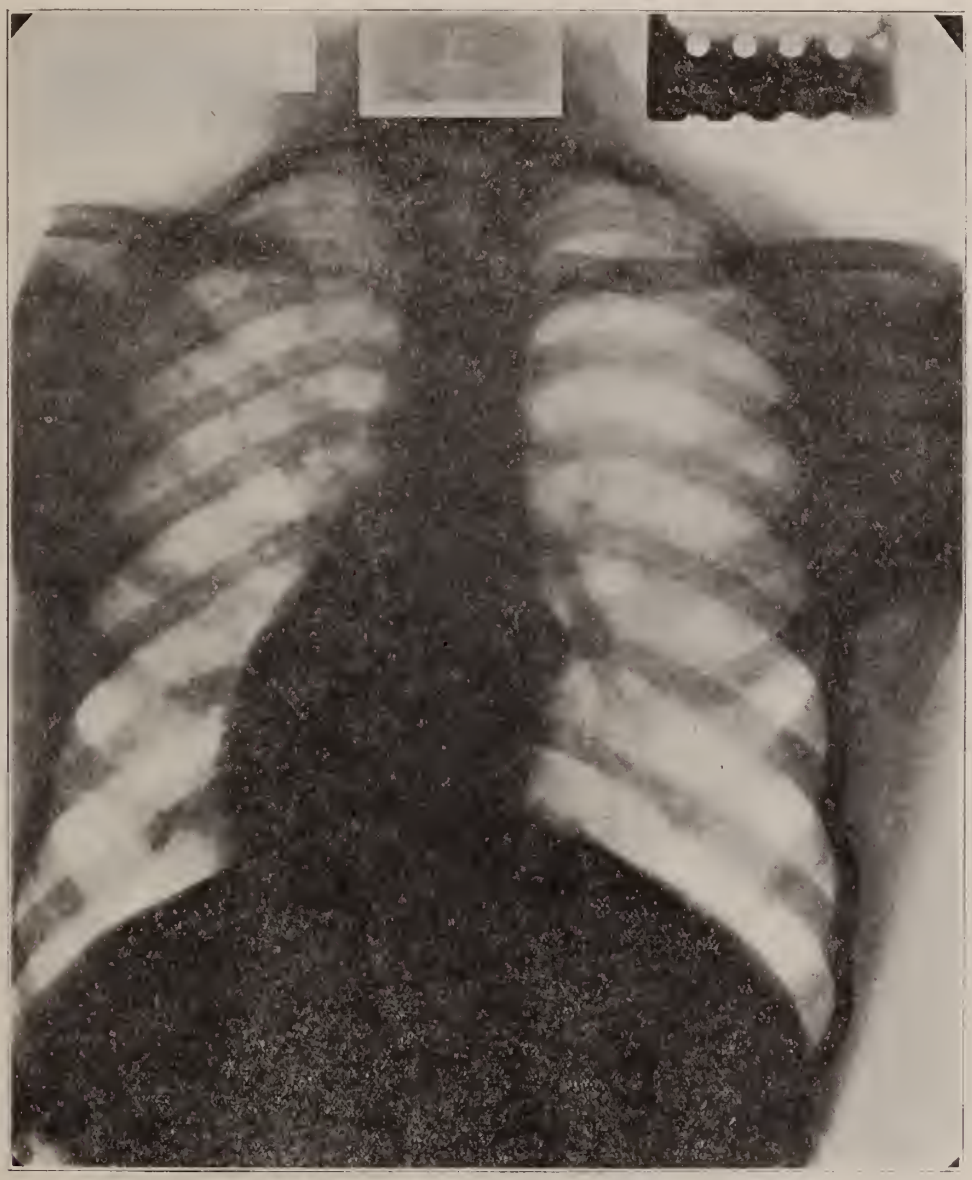
We have had 10% of failure or partial failure; in 2 cases no anesthesia; in 4 incomplete; 1 failure to get needle into spinal canal; 3 cases of anesthesia lasting less than 30 minutes. Our failures occurred with the early cases and were doubtless due to faulty technic.

THE USE OF ARTIFICIAL PNEUMOTHORAX AS A HEMOSTATIC IN ADVANCED PULMONARY TUBERCULOSIS

Samuel B. English, M.D.,
and
Feivel O. Slavutsky, M.D.,
New Jersey State Sanatorium,
Glen Gardner, N. J.

Excerpts from 4 case histories of uncontrollable and recurrent copious hemoptysis are reported in this paper. In each case the source of bleeding was an old excavation, secondary to an extensive involvement. Routine rest cure and symptomatic drug treatment did not result in any apparent improvement. The hemostatic medication—calcium preparations, thromboplastin, horse serum—proved of no avail, the coagulability of the blood not being retarded. All 4 cases were obviously unsuitable for compression therapy. Pneumothorax treatment was resorted to as an emergency operation during the actual bleeding, when a dangerous circulatory failure had developed. While administering the first inflations no change in position of the patients was undertaken. To avoid an increase in the dyspnea, choking by the outpouring blood, and a possible increase in bleeding, the patients were

left in their original positions—on the back, with chest elevated, and upper extremities resting beside the chest. The usual precautions against pleural shock and gas embolism were observed: (a) careful anesthesia of the whole tract leading the needle to the pleural cavity; (b) allowing air to enter the chest only in the presence of a good initial negative reading. (In most cases upon reaching the pleural cavity there is a sensation of touching a rough moving surface—the visceral pleura.) Luckily, the needle entered the pleural cavity in all cases at the first puncture, though in 3 patients there were dense adhesions. Control of the bleeding was achieved in each case with but a partial pneumothorax created, and in 3 of them a general improvement followed due to abatement of the toxemia. The refills were repeated daily at first in order to maintain control of the bleed-



Case No. 1, Plate No. 1—July 21, 1923. Shows mottling of the middle-third of the right lung, extending from hilum. Mottling through upper four-fifths of the left with 2 annular shadows in the second interspace, near the hilum.

ing. In none of these cases did a marked displacement of the mediastinum occur, which could be attributed partly to the fact that relatively small amounts of air were injected at each sitting, partly to fixation of the mediastinum by dense fibrosis.

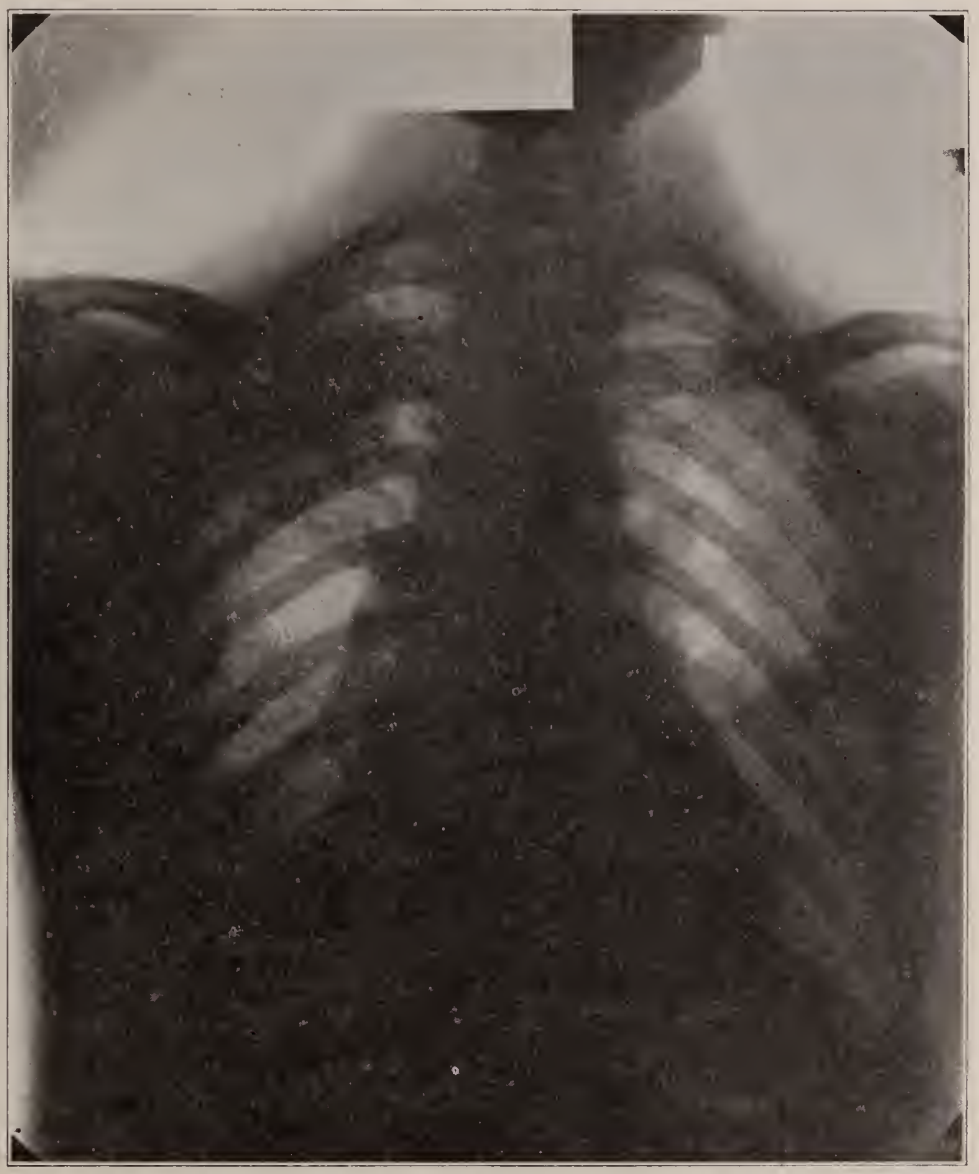
Cardiac and respiratory stimulants, also fluids, were given freely, as there was no danger in raising the blood pressure while having the bleeder under mechanical control.

Case 1. M. V., male, aged 27, admitted March 22, 1927. Had been previously a patient at this sanatorium in 1923-24. Repeated hemoptyses. Adventitious sounds over upper two-thirds of either lung, more numerous over the right; probable excavation of both uppers; mild activity. Sputum positive. Hemoglobin 60-65. Radiograph showed cavi-

Case No. 1, Plate No. 2—March 25, 1927. Shows mottling throughout the right with cavitary shadows in the upper lobe near the axilla. Left lung considerably clearer.

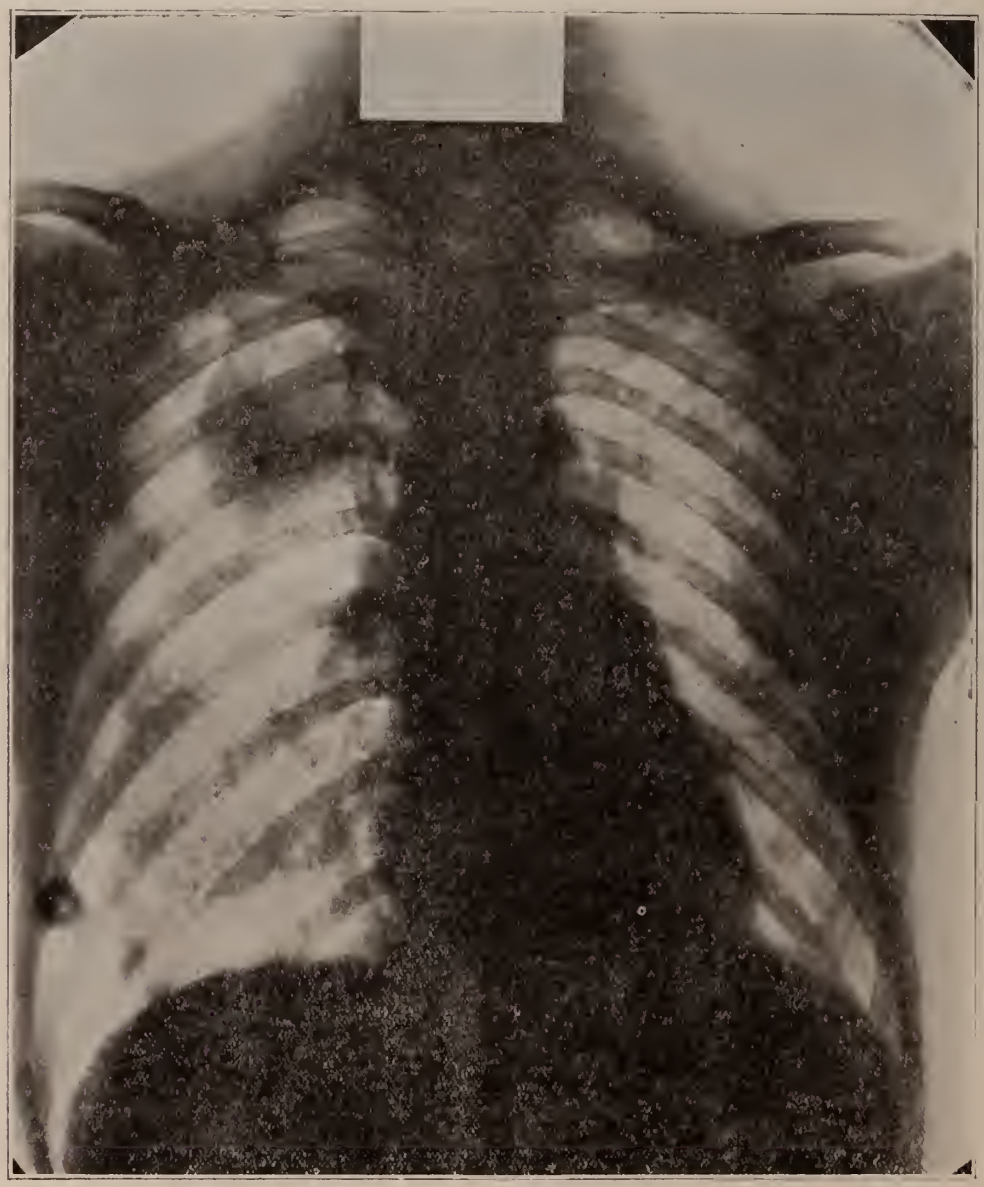
tary shadows in the upper right lobe, near the axilla.

On July 6, 1927, patient raised 4-5 oz. blood and then ran a subfebrile temperature, with an occasional flare-up, and frequent blood spittings. On December 7, 1927, patient began to raise blood profusely, at short intervals, showing this time symptoms of marked toxemia. With each hemoptysis there was a sharp pain in the left chest, which made the patient believe that the left lung was bleeding. Up to December 9 patient had raised 40½ oz. blood (not including the clots between bleedings). Numerous gurgling râles were heard over either lung, and the source of hemorrhage could not be located. Roentgenograph taken on December 9 showed in the right upper lobe, in place of the original cavitary shadows, a large dense shadow which was interpreted as one formed by the blood filling



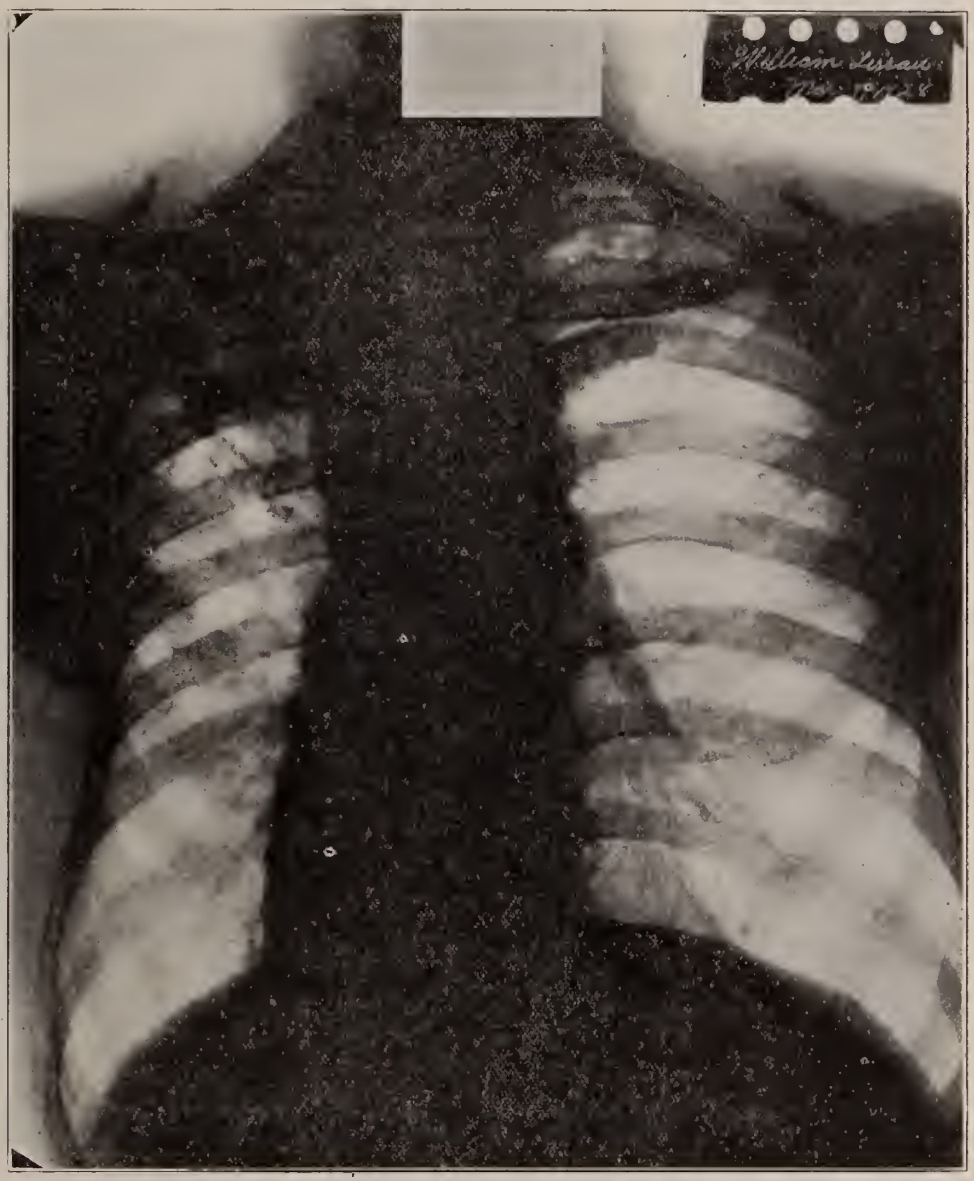
Case No. 1, Plate No. 3—December 9, 1927. Shows a large dense shadow in the upper right lobe in place of the original cavitary shadows (cavities filled with blood).

the cavities and surrounding lung tissue. Then 200 c.c. of air were introduced, the needle entering the right pleural cavity at the first puncture in the sixth interspace along the anterior axillary line. A small amount of air was given because of grave condition of the patient and a pain in his right shoulder caused by the inflation. Within the succeeding 15 hours patient had raised 12 oz. blood, and another 900 c.c. of air were injected on December 10, during the bleeding. The hemorrhage abated for 12 hours only. On December 11, patient lost 13½ oz. and December 12, at 10 a. m., 9 oz. blood, falling practically into a moribund state. During this last hemoptysis, 925 c.c. of air were introduced, with a resulting high positive pressure preventing further inflation. Following this, only very dark clots were raised and the patient appeared at first to recover from his semicomatose condition.



Case No. 1, Plate No. 4—December 24, 1927. Shows a right partial pneumothorax with the cavitary shadow compressed and reduced in size.

There was a diminution in the dyspnea, and regaining of some color. The picture taken on December 24 shows clearly the hemostatic action of the pneumothorax, the shadow of the cavities being compressed, reduced in size.



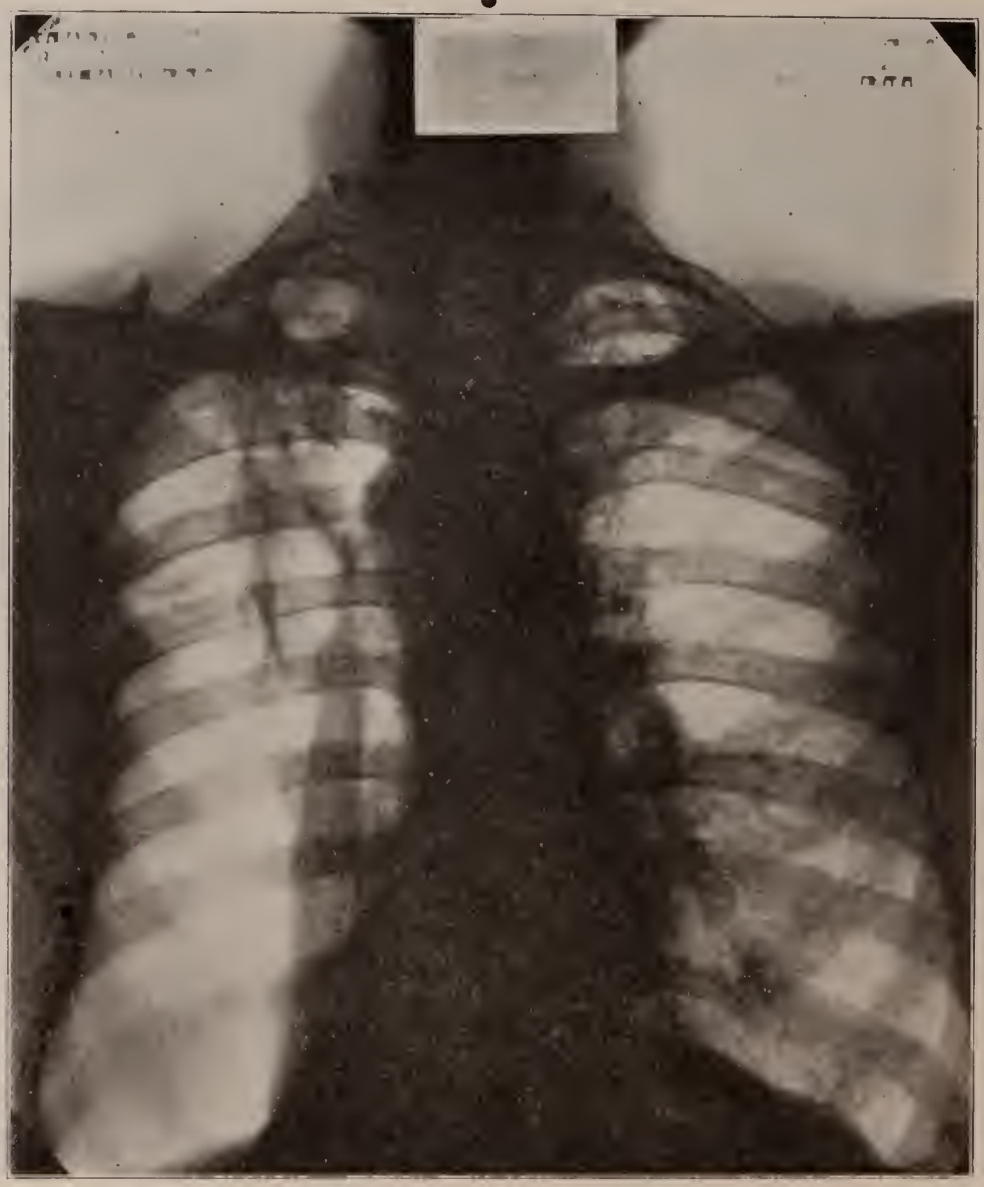
Case No. 2, Plate No. 1—March 9, 1928. Shows dense mottling over right apex, and some fine mottling along the bronchi throughout. Excavation and dense fibrosis of the upper left, mottling through the upper three-fourths, contraction of the whole left lung.

Having within 6 days lost 75 oz. blood plus clots between bleedings, plus blood absorbed from the lungs and blood swallowed, the patient survived for 2 weeks following checking of the hemorrhage. He died on December 26, apparently from a bilateral bronchopneumonia and general toxemia.

Case 2. W. L., male, aged 52, admitted March 6, 1928, had been a patient at this sanatorium in 1912 and 1919. Many recurrent hemoptyses. Tuberculous involvement of right upper-third and practically entire left lung, with cavitation of the upper left and numerous gurgling râles over that area. Complication: tuberculous laryngitis. X-rays

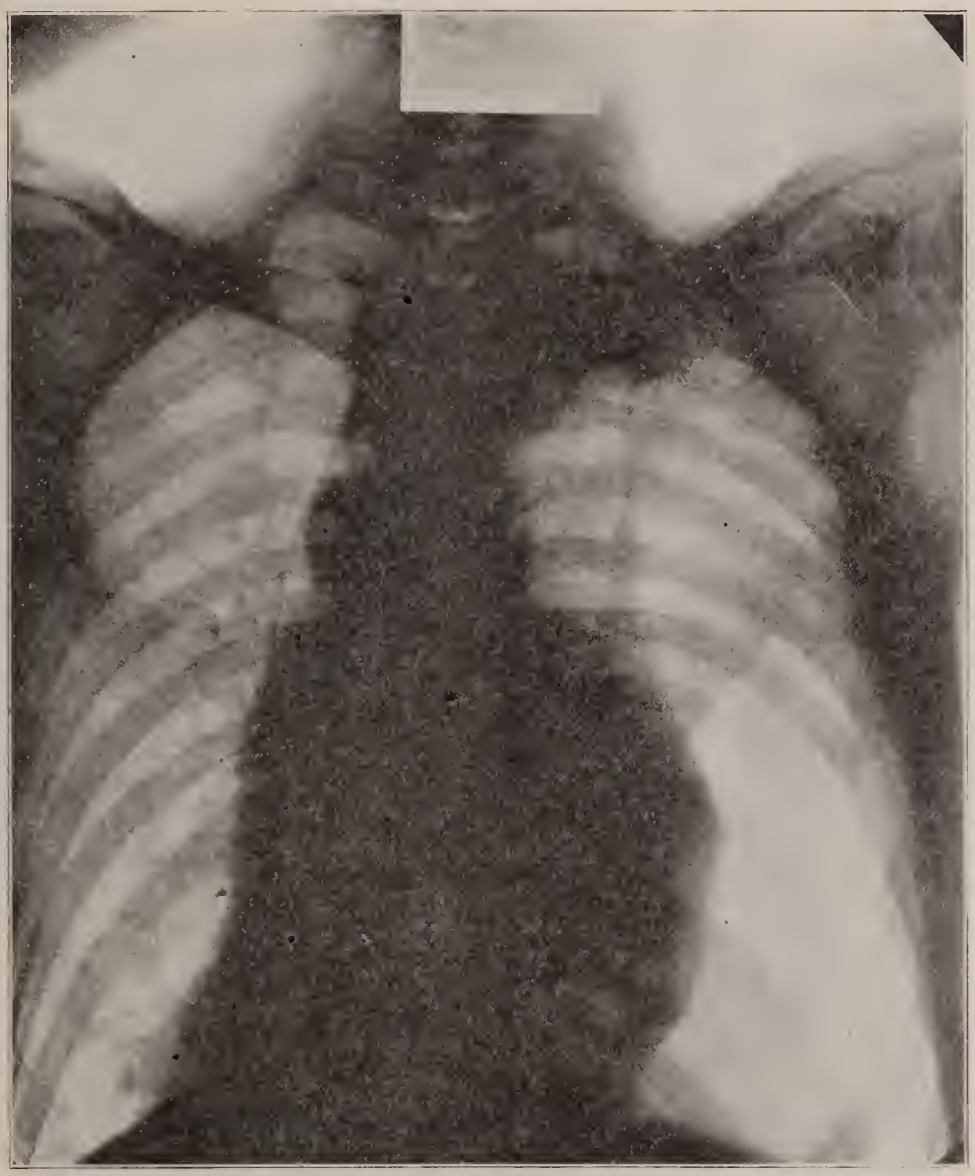
showed excavation with dense fibrosis of the upper left and contraction of the whole left. Sputum positive. Hemoglobin 70.

The left lung obviously was the seat of activity and bleeding. Pneumothorax therapy seemed, however, to be unjustified in view of the marked fibrotic changes in the left lung, and the comparatively advanced age of the patient. After May 26, he developed a marked toxemia with high temperature, and daily expectoration increased from 2 to 6 oz. There were signs of progressing excavation in the left lung. On June 8, while in the lavatory, patient raised about a quart of blood. Losing thereafter 3-5 oz. daily, his general condition became grave, with marked dyspnea, cyanosis, and a blood pressure of 94/88. On June 15, during bleeding, 450 c.c. of air were injected, the needle having entered the left pleural cavity at the first puncture in the sixth interspace, along the anterior axillary line. Patient continued to raise bloody sputum and



Case No. 2, Plate No. 2—August 18, 1928. Shows collapse of the left lung with dense fibrous bands in the upper half.

clots for more than a month, and the refills were kept up, at first daily, then on alternate days, as there was no assurance that the bleeder was under complete control. The temperature from 104.6° on the day of the first inflation dropped within 6 days to 98.8°, remaining practically normal. The general condition improved rapidly. On September 15 the temperature rose to 101.2°, but became normal again within 6 days, x-rays revealing the presence of fluid in the pneumothorax cavity. The patient is still confined in the sanatorium, but is up and about, with a normal temperature, expectorating not more than 1 oz. daily. The fluid so far has the advantage of lengthening the time intervals between the refills.

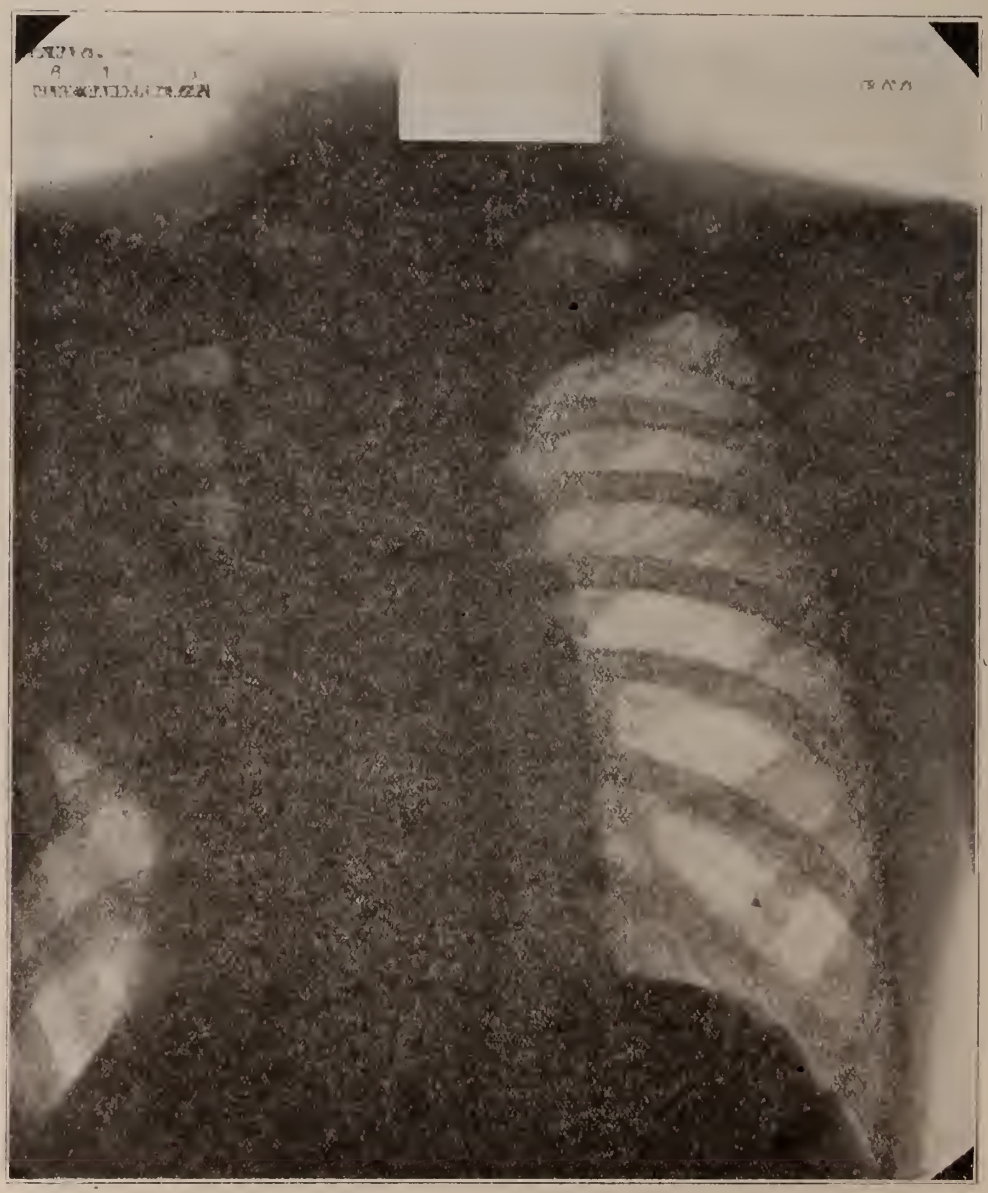


Case No. 3, Plate No. 1—November 28, 1928. Shows about 75% collapse of right lung. Apex not compressed. Fibrous bands in the upper half preventing uniform compression.

Case 3. R. P., male, aged 40, was admitted October 11, 1927, with history of 4 profuse hemoptyses dating from August 21, 1927. In-

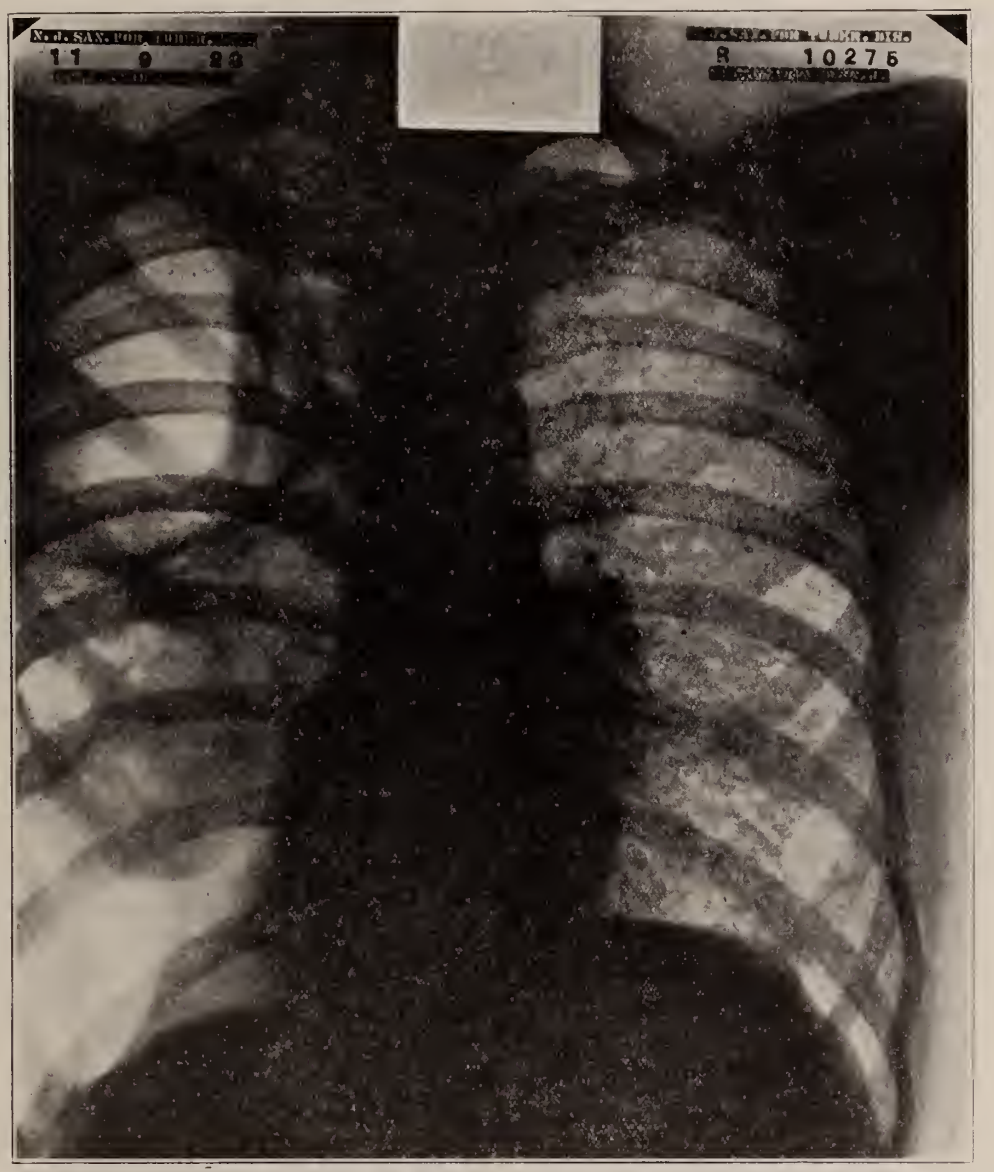
volvement of entire right lung with excavation of the upper and numerous adventitious sounds throughout. Harsh emphysematous breathing over the left, with some adventitious sounds at the base. Marked toxemia with cyanosis, dyspnea, intermittent pulse, and blood pressure 104/96. Complication: tuberculous laryngitis. Sputum positive. Hemoglobin 70.

In view of marked circulatory failure the capacity of the heart to stand compression of the right lung was doubted. On October 16, during the night, patient raised a considerable amount of blood, which was followed by several smaller hemoptyses. The circulatory failure steadily growing worse, on November 5 patient lost 5 oz. blood, and 350 c.c. of air were injected, the needle having entered the right pleural cavity at the first puncture in the eighth interspace, along the scapular line.



Case No. 4, Plate No. 1—July 18, 1928. Shows extensive fibrosis of the upper left with excavated areas traversed by fibrous bands. Some fine mottling along the bronchi of the right.

Following the first inflation patient raised 2 oz. blood on November 6, and 1½ oz. on November 7, when 600 c.c. more of air were given. From the second inflation on patient raised only streaked sputum, which cleared up completely after November 30. There was considerable improvement in the respiration and pulse of this patient, but his temperature continued high. On December 2 patient complained of an ischiorectal abscess, which had been developing for 2 weeks. About 4 oz. sanguineous pus was evacuated, with a resulting drop of temperature and a further general improvement. On December 29 the blood pressure was 100/70, and on January 13, 1928, 110/78. The pulse pressure reaching 32 mm. as against 8 mm. on admission.



Case No. 4, Plate No. 2—November 9, 1928. Shows 2 gas pockets in the left pleural cavity; the upper bounded by dense fibrous bands

Patient was transferred to his County Sanatorium on February 15, 1928, bedridden, but with a temperature below 100° and 2 nega-

tive sputums. He has been there for more than a year, is still under pneumothorax treatment, having negative sputum and a normal temperature.

Case 4. F. H., male, aged 28, was admitted June 14, 1928. Trauma to the left chest with fracture of 3 ribs in June, 1921. Repeated profuse hemoptyses dating from February 1922. Involvement of entire left lung, considerable moisture in the upper-half. Emphysematous breathing over the right with no apparent lesions. Moderate activity. Complications; bilateral otitis media, probably intestinal tuberculosis and constitutional syphilis. Roentgenograph showed extensive fibrosis of the upper left with excavated areas transversed by fibrous bands. Sputum positive. Wassermann 4 plus. Hemoglobin 60-65.

Practically, a unilateral case but unsuitable for pneumothorax treatment because of extensive fibrosis, constitutional syphilis, and multiple tuberculous complications. A small hemoptysis occurred on July 15. There were also repeated bleedings by rectum. On August 26, 1928, patient was taken with a profuse hemoptysis accompanied by a sharp pain in the left chest. Within 48 hours he raised 18 oz. blood, not including the clots between bleedings. On August 28 patient became prostrated, with a marked dyspnea, high temperature, and a thready, at times imperceptible, pulse. The general condition growing worse—on August 29 patient lost 7½ oz. blood—and apparently becoming unable to further cough up the outpouring fluid, 600 c.c. of air were injected, the needle entering the left pleural cavity at the first puncture in the sixth interspace along the anterior axillary line. Following the first inflation, the patient raised within one day 13 oz. dark clots. In 10 days the sputum was but rusty, and the general condition was rapidly improving. He gained in color and weight, and became able to help himself. No bleedings by rectum were observed. On October 8, only a minimal amount of air could be introduced in the sixth interspace, the usual site of injections, probably because of formation of small pockets over that area. A new gas pocket was created at the base of the treated side by injecting the air at the ninth interspace, along the scapular line. The air pocket at the upper part of the pleural cavity was also maintained by periodic refills in the second and fourth interspaces. The second plate shows 2 gas pockets, the uppermost being bounded by dense adhesions.

Patient was transferred to his County Sanatorium on December 5, 1928, where he is progressively improving under continued pneumothorax treatment.

Conclusions

In uncontrollable, and also in recurrent, profuse hemoptyses, occurring in advanced cases of pulmonary tuberculosis, the source of bleeding is a blood-vessel eroded within a cavity.

A safe control—mechanical in action—can be obtained only by compression of the lung. Artificial pneumothorax should be tried early, before there is dangerous exsanguination and the patient is badly unnerved.

Dense adhesions, as shown on the radiograph, are not necessarily a contraindication to artificial pneumothorax; frequently the needle strikes a free pleural space at the first attempt, though the picture seems to be unfavorable. (Cases 2, 3 and 4.)

In bilateral cases, when there is doubt as to location of the bleeder, an x-ray picture may clear up the situation. In place of the original shadow of diminished density, the bleeding cavity will present a very dense shadow, larger in size because it is formed by the blood filling the cavity and the surrounding lung tissue. (Case 1, plate 3.)

During the hemorrhage the lung is filled with free blood, its resistance to compression is increased, and relatively small amounts of air may cause the manometric reading to sink to a positive. Pressure of the air squeezes out the blood clots from the bronchial tree and the manometric reading will accordingly be found again negative on the same or the following day when the second inflation is given.

Refills should be given daily at first, until

the hemorrhage is checked completely, frequent small inflations being preferred in order to prevent a rapid shifting of the mediastinum with its consequences.

The pressure of the air within the pleural cavity is apparently conveyed to the bleeding area, even when the latter is surrounded by adhesions and seemingly unyielding under the first inflations; partial pneumothorax is, therefore, sufficient to control the hemorrhage.

The circulatory failure present in severe hemoptyses disappears under pneumothorax treatment, being mostly caused by the increased autoinoculation.

RECORD OF FIRST 3 PNEUMOTHORAX TREATMENTS

Date	Manometer reading	Amount of air in cubic centimeters	Site of injection
Case 1—			
12-9-27	− 16 − 6 − 12 − 4	200	6th interspace
12-10-27	− 10 − 6 − 7 + 6	900	5th "
12-12-27	− 14 + 2 − 7 + 10	925	5th "
Case 2—			
6-15-28	− 10 − 3 − 2 + 4	450	6th "
6-16-28	− 8 + 1 − 2 + 8	700	6th "
6-17-28	− 8 + 0 + 1 + 9	700	6th "
Case 3—			
11-5-27	− 16 − 6 − 16 − 2	350	8th "
11-7-27	− 12 − 3 − 10 − 1	600	8th "
11-10-27	− 14 − 4 − 10 − 1	500	9th "
Case 4—			
8-29-28	− 7 − 2 − 2 + 7	600	6th "
8-30-28	− 6 − 1 + 4 + 11	900	6th "
8-31-28	− 1 + 5 + 4 + 9	500	6th "

SOME PROBLEMS IN THE DIAGNOSIS AND TREATMENT OF LARYNGEAL CANCER

Fielding O. Lewis, M.D.,
Philadelphia, Pa.

The observations and results herein recorded are based upon experiences gained since 1919, in the performance of 125 total laryngectomies, 10 laryngofissures, 4 subhyoid pharyngotomies and some 75 inoperable carcinomas of the larynx that were treated by x-rays and radium.

Let me remind you that laryngeal cancer is not a rare occurrence, that while the chief age of incidence is the fifth decade, yet many cases occur between the ages of 60 and 90 and several cases have been observed in children, and I have removed the larynx for extensive carcinoma in 3 patients under 30 years of age.

Statistics show that in 1926 some 4000 deaths resulted from this disease in our country alone—and why? Partly because, as the histories of numerous cases reveal, many practitioners of medicine, and this also includes laryngologists, do not realize the importance of a thorough and careful investigation of all cases of persistent hoarseness, an early and invariable symptom of laryngeal cancer. Making careful inquiry into the antecedent history of 100 selected patients suffering from carcinoma of the larynx, my associate, Dr. Austin T. Smith, found that the average time from the beginning of hoarseness until a diagnosis was made was 11½ months; many of these cases were far advanced, and many had been treated for chronic laryngitis without even an attempted mirror examination of the larynx.

More than 20 years ago that eminent English surgeon, Charles P. Childs, wrote his book in advocacy of the theory that many lives could be saved if persons in the early stage of cancer would apply to physicians in time to make a cure possible. Since that time much has been accomplished. The whole civilized world has joined forces to combat cancer progress. Scientists are devoting their whole time in research laboratories to investigate the cause of cancer and if possible dis-

cover a means to stop its advance. Diagnostic methods have greatly improved. Surgical technic has been developed to a high point of excellence. Radium and x-rays have been introduced for the cure of cancer or for its palliation. Numerous forms of treatment have been advocated, most of them empirical. A systematic form of instruction is being given to the public concerning the early signs of cancer, and the medical profession is being aroused to use every means at its command for early recognition. It behooves all of us to be keenly alert to every phase of this grave malady.

It is my belief that the percentage of deaths from cancer of the larynx will be greatly reduced in the very near future, as the seeds sown in recent propaganda are already beginning to bear fruit; as evidenced by the public's interest in yearly physical examinations and the general interest and alertness of the medical profession.

The diagnosis of early intrinsic cancer of the larynx is often extremely difficult. One must not only have, as expressed by Dr. Delavan, "a subconscious reasoning based upon long experience of many closely observed cases", but he must also have the coöperation of an accomplished pathologist experienced in the study of neoplastic tissue.

The disease is insidious in its inception and may exist for months before giving rise to symptoms sufficiently pronounced to induce a patient to seek relief. Hoarseness may be the only symptom, since in rare exceptions the growth originates on the vocal cords. Dr. Chevalier Jackson has repeatedly stated that a persistent hoarseness in patients of cancer age should be considered as suspicious of a cancer origin. It must be remembered that cancer may coexist with syphilis and tuberculosis of the larynx or that it may develop in those known to have pulmonary tuberculosis or syphilis.

One should not rely upon mirror examination alone for a positive early diagnosis for, by so doing, grave mistakes have been made even by those of large experience; nor should one place absolute reliance upon a biopsy, as even the best pathologists make mistakes. It is only human to err. In order to place confidence in an histologic report, 2 features are essential: (1) the laryngologist must remove an adequate amount of tissue for a comprehensive study; (2) the tissue must be properly prepared and carefully studied by a competent pathologist. I cannot place too great an emphasis on these essentials. I have sometimes found it necessary to open the larynx in order to fully visualize the growth and to remove a sufficient amount of tissue before being able to make a definite diagnosis. Those who oppose biopsy as a means of diagnosis believe that this procedure increases the rapidity of growth to such an extent that it lessens the chances of complete removal. This has not occurred in my experience, as proved by histologic studies of several growths after removal. In order, therefore, to be fairly sure of our diagnosis, we must correlate our clinical findings with those of the pathologist, plus the experience given in the close observation of many cases.

To treat laryngeal cancer satisfactorily and intelligently, one must not only bear in mind its clinical classification, as suggested by Krishaber in 1879, into the intrinsic and extrinsic forms, but also the extent of its involvement, as upon this depends what procedure shall be followed to offer the patient the best means of a lasting freedom from the disease; or if the lesion has extended beyond the limits of a possible radical treatment, what form of palliation may best be followed.

I am among those who believe that once the diagnosis of malignant disease of the larynx has been established, only one question will remain to be answered: "Is it possible to remove the disease by radical surgical operation with a reasonable prospect of cure?" If so, no other treatment is worthy of consideration.

Dr. Archibald Leitch, speaking of the general pathology of cancer, says: "There are really very few operations on cancer that merit the title radical in the sense that they conform to the pathologic necessities of the average case, or that in fact succeed in preventing recurrence of the disease. It ought not be necessary to reiterate the fact that a cancer if completely removed cannot recur."

Treatment by radium. Because of failure

and distressing symptoms produced by radium in treatment of the earliest cases, many have abandoned its use in laryngeal cancer. However, when we read the results published by others, the question which naturally confronts us is, have we given it a fair trial? Has our technic been at fault? Is it because we have only employed radium in hopeless and inoperable conditions? With improved technic and the use of gold and platinum emanation tubes, by which larger doses may be given without producing sloughs, it seems to me that a more optimistic view may be expected in the future. In a recent report from St. Bartholomew's Hospital, London, Harmer records 6 cases that have had a 3 year cure out of 11 cases treated, tabulated into 3 groups: (1) Early cases in which the growth was strictly confined to 1 vocal cord and which could have been treated by thyrotomy; 5 cases, 4 cured. (2) Advanced cases in which the disease was intrinsic or had crossed the midline and could only have been treated by some form of laryngectomy; 4 cases, 1 cure, 1 arrested, 2 deaths. (3) Inoperable cases in which the disease had extended into the pharynx or through the laryngeal cartilage into the neck with enlargement of the cervical glands; 2 cases, 1 cure, 1 death.

We have tried this method in 1 case in which a total of 4000 millicure hours were used without any lasting results. The larynx was later removed. This patient died from recurrence.

Up to Sept. 1, 1928, we had treated about 70 cases of laryngeal cancer by radium and x-rays; all were inoperable and all have died or were in a hopeless condition. We have employed several methods of application, some by external irradiation alone, others by implantation of gold tubes into and around the growth by aid of the laryngoscope or by widely opening the larynx, without the slightest encouragement. Since that time, however, Dr. Bernard P. Widmann, our radiologist, has been using a technic which has been most encouraging in the extrinsic form of cancer, in that inoperable cases have been rendered operable. We are encouragd with the hope that more patients of this type can be saved. On account of its destructive effect on the laryngeal cartilages, it is unsafe for intrinsic cancer cases.

Technic. Radiation treatment of metastatic cervical glands in intra-oral cancer with special reference to laryngeal cancers.

(1) High voltage x-rays (200,000 volts) in divided doses on basis of saturation. The type of radiation is altered; (a) 0.5 mm. copper; (b) 1 mm. copper; (c) 1.5 mm. copper. Suberythema dose is given (approximately 80% E.S.D.) in succession. These different filtrations are used so that nearly 300% E.S.D. will be delivered to the skin on both sides of the neck within a period of approximately 6 weeks.

(2) Another series of cases received pure gamma radium pack treatments; 72 hours continuous radiation delivered to the right or left side of the neck; 2 days of rest and another 72 hours treatment to the opposite side of neck. During the following week 2 more applications of 48 hours each are given, and the following week a 24 hour application to each side of the neck. A fourth treatment is repeated the following week for 24 hours. The intensity of this radiation is equivalent to approximately 40,000 m.c. hours. Factors: 2 mm. platinum (or equivalent in lead 4 mm.) 4 cm. felt. The usual filtration of 0.5 mm. silver and 1 mm. brass at 6 cm. distance is 10,000 m.c. hours.

(3) A combination of high voltage x-rays, as described in paragraph 1, and gamma radium packs as described in paragraph 2, is now being tried. We cannot explain the different values of the different filtrations except that there has been an appreciable improvement in end-results without damage to skin and apparently without the usual laryngeal irritation so frequent with lesser filtration.

It is our practice to use radium routinely, as a prophylactic measure in postoperative treatment in all cases of laryngectomy and laryngofissure. Radium has won lasting recognition in carcinoma of the tonsils and other parts of the body, but in operable carcinoma of the larynx its use up to date is so far inferior to

surgery that operative measures should be the treatment of choice.

Surgical treatment. The well known surgical methods adopted for radical treatment of laryngeal cancer are endolaryngeal removal, thyrotomy or laryngofissure, partial and total laryngectomy, subhyoid and lateral pharyngotomy.

Endolaryngeal operation. In no case was an attempt made to remove the growth by endolaryngeal method. While successful cases have been reported, yet, as Jackson has pointed out, the uncertainty of removal of a sufficiently wide zone of adjacent normal tissue without cutting through the growth itself, is too great. Partial or hemolaryngectomy, because of high operative mortality and large percentage of recurrence, is seldom employed. Laryngofissure is the treatment of choice in early intrinsic cancer, that is, when the growth is limited to the anterior 2/3 of the cord, circumscribed and of slow growth. St. Clair Thompson states: "My statistics show a lasting freedom of disease in many cases of 5-15 years in 80% of cases." I feel justified in repeating what I said many years ago: "If patients could be seen early, while epithelioma was still limited to the vocal cord, the operative death rate should be nil, and preservation of voice should be satisfactory and cure lasting." Jackson's statistics are slightly less, about 79%, while MacKenty states this operation has not given him the brilliant results published by others. Operators differ slightly in technic; some prefer tracheotomy and packing of the larynx after excision of the growth, while others expose the trachea, omit the packing and tracheotomy unless complications arise.

In a fairly active cancer service at the Philadelphia General Hospital, at which I see all laryngeal cases, I have not seen 1 case that has been limited to the vocal cords. Records show that over 100 laryngeal carcinoma cases have been examined and diagnosed by biopsy in the last 5 years and out of this number, only 18 were operable and not 1 was limited to the vocal cords.

I have performed laryngofissure in 10 cases; the first patient, who died of recurrence, should have had a total extirpation of the larynx. The other 9 are living; the oldest 9 years, without evidence of recurrence; 1 patient 4 years without recurrence; the other 7 have been treated too recently for comment.

Laryngectomy. If cancer of the larynx has extended beyond the limits at which laryngofissure is contraindicated, my experience and opinion coincides with that of MacKenty, i.e., that total extirpation of the larynx should be done, provided the general condition of the patient justifies the operation. If left untreated by radical surgery, the mortality is almost 100%, while the operative mortality is becoming notably less.

My experience in the surgical treatment of extrinsic cancer leads me to a more hopeful view than one notes in the literature. If a patient has evidence of metastasis in the cervical glands, which is not extensive and the glands are freely movable, I believe he should be given a chance by radical removal combined with x-ray or radium therapy, provided the general condition permits. If there is questionable x-ray evidence of metastasis in the chest, I am of the opinion that the patient should be given the opportunity for living a few more months or possibly 1-2 years comfortably and usefully by radical removal of the primary lesion and deep x-ray therapy to the chest. I have 1 patient who had extensive extrinsic involvement, still living after 8 years without evidence of recurrence.

Carcinoma of the epiglottis, base of the tongue and pyriform sinus, can be successfully treated surgically. I prefer the subhyoid approach and use of the thermic knife for this operation. I have operated on 4 patients by the subhyoid approach; 1 is living after 3 years without recurrence; 1 died from heart disease 2 years after the operation; another had extension in the neck requiring resection of the carotid artery and jugular vein, dying on the fourth day from broncial pneumonia; the fourth case was operated upon only a few months ago.

PAIN IN THE LOW BACK CAUSED BY STRUCTURAL VARIATIONS IN THE SPINE

Alan DeForest Smith, M.D., F.A.C.S.,
New York City

To discuss all of the causes of pain in the low back would require more space than can be allowed for this brief paper. It is intended here simply to present a number of common developmental variations in spinal structure at the lumbosacral juncture which may, and frequently do, cause pain and disability. It is important in all cases of backache to rule out the presence of arthritis, tuberculosis of the spine, metastatic tumors, and tumors of the spinal cord. It is also true that an injury to the ligaments or muscles alone may cause pain, but the results of such trauma should not endure very long unless the situation is complicated by one or more of the conditions to be described.

As one result of man's assumption of the upright posture, the lumbosacral juncture is subjected to a great deal of strain for which it is not well adapted. The entire weight of the head, trunk and upper extremities is transmitted to the pelvis and lower extremities through the articulation between the fifth lumbar vertebra and sacrum; a comparatively weak place in the spine because it is at the junction of the fixed and movable portions and of two curves, the anterior lumbar and posterior sacral. The bony structure must, therefore, be adapted in other respects to cope with this strain. Unfortunately, this is a region in which there are many developmental skeletal variations tending to make it less fit to withstand certain forces, and so common are these departures from the normal that it has been said there is no normal fifth lumbar vertebra. While this is an over-statement, it is true that developmental abnormalities are sometimes found without symptoms; though this does not mean that they do not constitute a weakness in mechanism and a potential cause of trouble. It is uncommon for symptoms to develop in these cases under the age of 20 years and often they are not manifested until after 30; probably due to the fact that the spine is not completely ossified until 25 years of age, and that the more flexible joints and stronger muscles of a young individual are better able to compensate for defects. When such a developmental abnormality is associated with repeated or long-standing pain in the lower back or legs it must be considered as an important etiologic factor.

In order to arrive at an accurate diagnosis in any case of chronic pain in the back it is absolutely essential to have good radiographs

Fig. No. 1—Lateral radiograph of fifth lumbar vertebra, showing acute lumbosacral angle.

of the lumbosacral region. At the New York Orthopedic Dispensary and Hospital, it is now a routine procedure to take a lateral picture of the fifth lumbar vertebra and sacrum, stereoscopic anteroposterior, and a single anteroposterior view at an angle of 45°; the latter showing best the sacrum and sacro-iliac joints, and relationship of the transverse processes of the last lumbar to the lateral masses of the sacrum.

The most important single factor in this group of conditions is the lumbosacral angle,

i.e., the relation of the plane of the upper surface of the sacrum to a horizontal plane passing through the posterior margin of the surface. Our knowledge of this subject is due very largely to von Lackum, who studied a number of anatomic specimens and found that the average inclination of the upper surface of the sacrum to the horizontal is 42°. There is a *shearing* stress at this place, caused by the tendency of the fifth lumbar to slide downward and forward, a movement which is normally prevented by the lateral articulations between the fifth lumbar and first sacral and by the intervertebral disc. The greater the deviation of the upper surface of the sacrum from the horizontal, or, in other words, the more acute the lumbosacral angle, the greater is this stress and the greater the possibility of strain. An important factor in connection with this angle is the relationship to the upper surface of the sacrum of a vertical line dropped from the center of the body of the third lumbar vertebra; which line is approximately the center of weight-bearing. If it falls within the sacrum, the consequence of an acute angle is not so great; the farther in front of the sacrum it falls, the greater will be the strain produced by an acute lumbosacral angle. Oblique, unstable, lateral articulations also enhance the harmful effect of this condition.

Fig. No. 2—Lateral view of fifth lumbar vertebra, showing backward displacement on sacrum.

The lateral or arch articulations face anteroposteriorly in the dorsal, and laterally in the lumbar region of the spine. Those between the fifth lumbar and first sacral may be lateral but frequently are oblique, and sometimes anteroposterior. When the latter condition is present the facets usually are small and the joints much less stable. This allows a sprain to occur much more easily, and the very instability of the last lumbar vertebra alone may be a source of much pain and discomfort. In some cases the joint on one side is anteroposterior and that on the other lateral; a particularly bad combination because, as pointed out by von Lackum, these joints have among other functions that of guiding movements of the fifth lumbar vertebra, and when asymmetric, strain is quite certain to result.

With the usual lateral articulations between the fifth lumbar and first sacral vertebras, a posterior displacement of the former cannot well take place, but with small articular processes and anteroposterior facets, such a displacement is easily possible. It may be for only a small fraction of an inch but of great significance because it invariably gives rise to pain. A considerable degree of spasm is likely to be present in the back muscles, and the pain often radiates down the back of the legs. The displacement can be demonstrated by a lateral radiograph, and in some cases is present when standing but not while lying down.

A space of ¼ in. or more exists normally between the spinous processes in the lumbar region, but direct contact, and even overlapping, of the spines may occur and cause localized pain which is increased by extension of the spine; tenderness is usually found over such spinous processes. The diagnosis rests, however, on the radiograph.

A hiatus may occur at the center of the neural arch with absence of the spinous pro-

cess. When well marked this is called spina bifida, but it frequently is found as a cleft in the arch of the fifth lumbar or first sacral. Its importance in this connection is that it necessitates longer and weaker ligaments. Occasionally the spine of the first sacral becomes incorporated with the spine of the fifth lumbar, resulting in a very long beak-like projection downward between or impinging upon the ununited laminas of the first sacral.

There is no question that evolution is still progressing in the lower spine. In man, the normal number of free or presacral vertebras is 24, and the twenty-fifth vertebra is the first sacral, making contact with the pelvis on either side. There is a tendency, however, for the trunk to be shortened by incorporation of the twenty-fourth presacral, or fifth lumbar, into the sacrum. In some individuals this does take place, and is advantageous with the upright posture because it makes for a stronger back. It is interesting to find that man is intermediate in this respect between the 4 anthropoid apes, 2 of which species have normally 4, and the others 6 lumbar vertebras. In man, as well as in the anthropoids, there are numerous examples of various stages in the process. There may be an arrest in migration of the pelvis toward the head, as manifested by a completely free first sacral with all the characteristics of a lumbar vertebra; a longer and weaker lumbar spine. The most important instances, from the clinical standpoint, are the intermediate phases in which either the twenty-fourth or twenty-fifth presacral vertebra is incompletely sacralized on one or both sides. In such case an intervertebral disc intervenes between the bodies, and the transverse process on one or both sides is greatly enlarged, conforms to the shape of the lateral mass of the sacrum, and articulates with but is not fused to the latter. This causes an unequal strain, and we believe that in all such cases pain develops sooner or later.

In rare instances the normal transverse processes of the last lumbar vertebra impinge upon the sacrum or even upon the ilium, thus causing pain, but in most cases where this appears to be so it can be demonstrated in the stereoscopic and 45° anteroposterior radiograms that the transverse processes really are anterior to the sacrum and ilium.

The fifth lumbar vertebra appears to meet with difficulty in completing development, as seen in failure of laminal union posteriorly at the midline or between the superior and inferior articular processes. Now, the inferior articulations, as Willis has well shown, act as a hook, catching upon the articulations of the first sacral, and thus constituting the most important factor in preventing the fifth lumbar from sliding forward on the sacrum. When

Fig. No. 3—An extreme case of spondylolisthesis; the fifth lumbar displaced completely on the sacrum.

they are thus separated from the body, the latter, in spite of the intervertebral disc, slides forward and downward upon the sacrum to some degree; this constitutes the condition called spondylolisthesis. About 30 such cases have been operated upon at the New York Orthopedic Hospital and in all the condition just described has been found. In some a very extreme degree of displacement was present, and all had pain.

Although fractures do not belong in the

category of developmental variations, they may well be considered here because they do cause changes in structure which give rise to pain. Fractures of the fifth lumbar vertebra are not uncommon and may involve either the body or the posterior arch. The latter, in particular, may be difficult to photograph, and in several instances have been found at operation when their presence could not be demonstrated by roentgenograms.

It may have been noted that nothing has so far been said about the sacro-iliac joints. It is very common for pain in the lower back and legs to be attributed to relaxation or displacement of these joints. The sacro-iliac ligaments are the most powerful in the body and only by extreme violence can they be torn. In the relatively few cases in which sacro-iliac displacement can be shown by x-rays, and in cases of tuberculosis, moreover, pain is by no means always present. We believe that very few cases of low back and leg pains

Fig. No. 4—A 45° anteroposterior radiograph of fifth lumbar and sacrum, showing unilateral incomplete sacralization.

are caused by pathology in the sacro-iliac joints, and that when this is so it is a result of arthritis with limited motion.

The logical treatment for a patient with continued or repeated pain and disability arising from the conditions just described, and who has had a fair trial of so-called conservative measures, is a spine fusion operation, the purpose of which is to join the fifth lumbar, and sometimes the fourth as well, to the sacrum. This is done by the Hibbs method, which it is unnecessary at this time to describe. It is entirely adequate to produce a strong fusion, and sufficient bone is usually present locally to make the use of a bone graft from some other part of the body entirely superflu us. If such an operation has any place it certainly is not here where the sacrum is poorly adapted to receive such a graft. Spine fusion has been found in a large series of such cases to be effective in relieving the symptoms and is free from any undesirable consequences. Furthermore, it is the only procedure which offers any certainty of curing the pain and disability. It is an operation singularly free from mortality and complications. In a series of 150 operations at the New York Orthopedic Hospital there were no deaths. Pain from impingement of the spinous processes alone can be relieved by whittling down the spines, but such cases are few in number.

ARTERIOSCLEROTIC HEART DISEASE

Harold E. B. Pardee, M.D.,
New York City
Assistant Attending Physician, N. Y. Hospital; Assistant Professor of Clinical Medicine, Cornell Univ. Medical School, N. Y.

Eight or ten years ago the title of this paper would probably have been "Chronic Myocarditis". Its present title shows the changed viewpoint of cardiac disease which has developed during that time. Disturbances of the heart are now considered as much from the etiologic point of view as from the pathologic. We think not only of the pathologic changes which are present in our patients, but also of the causative conditions which have given rise to these changes. We speak of rheumatic, syphilitic, arteriosclerotic heart disease, or thyrotoxic heart disease, and so forth, indicating in the diagnostic term both cause and effect. Our diagnosis has broadened out from a simple statement of the pathology, to include abnormal physiology, cardiac functional ability and also etiology. Etiology is one of the most important features of the cardiac diagnosis, because the etiologic factor must be treated if progress of the heart disease is to be checked.

Arteriosclerosis rarely affects the heart itself, unless the coronary arteries become involved, and when this occurs one of 3 general types of pathologic change appears in the heart. The disease may either lead to marked narrowing of one or more branches of the coronary system, resulting in degeneration of the areas of heart muscle supplied by these branches, and eventually in a fibrous replacement; or there may be a more generalized narrowing of the coronary branches, resulting in a wide-spread degeneration of the muscle fibers and a wide-spread increase of the interstitial fibrous tissue with perhaps replacement of the degenerated muscle fibers by new fibrous tissue; or again, if the arteriosclerotic process becomes very marked in one branch, this branch may thrombose, resulting in infarction of an area of the cardiac musculature. If a large branch is involved this may result in sudden or rather prompt death, but the event is usually recovered from when smaller branches are affected because the collateral anastomotic branches of the coronary system bring the blood into the diseased area and it heals from the periphery inward. For this reason the permanently scarred area is not so large as the original area of degeneration. A fibrous patch will thus be produced in the heart wall, and the size of this will depend upon the importance of the artery which was thrombosed. Pathologists commonly find 1 or 2 or even more of such healed fibrotic areas in the heart. As a result of these processes the heart may show a diffuse fibrosis, perhaps with scattered areas of more marked change. There may be aneurysmal dilatation of large degenerated areas, or there may be a

rupture of the heart; but these are remote secondary effects and are not common.

Remember also what a remarkably regional distribution arteriosclerotic changes occasionally show. Certain systems of arteries may be degenerated, while in other parts of the body the arteries will show but little change. In this way it may arise that the coronary arteries may show marked degeneration without the peripheral vessels in the extremities showing more than a very moderate or slight degree. In another patient the peripheral arteries and perhaps the cerebral arteries may be markedly affected and the coronary arteries themselves may be but little changed. In the heart of such a patient the muscle fibers will not show degeneration and there will not be replacement fibrosis. It is only when the coronary arteries themselves are arteriosclerotic that the heart muscle becomes diseased. Even when the aorta is involved the coronary arteries may be only slightly affected, and the heart muscle may be practically normal.

It is not to be understood that arteriosclerosis of the coronary arteries is the only cause of fibrous changes in the myocardium. This of course is far from true, because a chronic rheumatic infection as well as prolonged passive congestion of the heart muscle may give rise to a definite fibrosis. Furthermore, syphilis of the aortic arch causes a narrowing of the mouths of the coronaries which may give rise to changes in the heart that are almost identical with those due to arteriosclerosis of the coronaries.

A word must be said about hypertension, because it is so often confused with arteriosclerosis as the cause of heart disease. Hypertension often coexists with arteriosclerosis, and it is a widely accepted belief that it does not exist long without giving rise to arteriosclerotic changes. I believe also that unless these arteriosclerotic changes affect the arteries of the heart itself, the hypertension will not result in true heart disease. It is true that hypertension may act as a mechanical handicap to the circulatory efficiency of the heart, just as would a stenosed aortic orifice. It may thus give rise to cardiac hypertrophy, and to signs of cardiac insufficiency, but I do

Fig. 1—Orthodiagraphic tracing of a patient with arteriosclerotic changes in the aorta. The right and left chest wall is marked as "R" and "L". It is seen that the aortic arch is somewhat dilated and tortuous, especially where it turns backward and downward into the descending aorta.

not believe that there will be demonstrable heart pathology unless the coronary arteries become arteriosclerotic or there is prolonged chronic passive congestion.

Atheromatous changes may be found in the valves of the heart, and when these involve the aortic valve an aortic insufficiency may result. When the mitral valve is involved, a mitral stenosis is occasionally produced; all of these valvular lesions have their secondary effects upon the heart, but they are rarely a cause of serious cardiac failure, and are usually only a minor part of a more important arteriosclerotic disease of the coronary arteries.

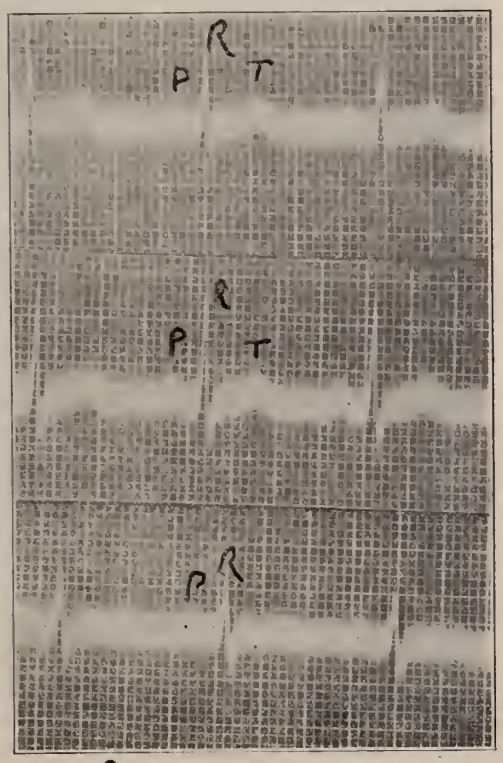


Fig. 2—A normal electrocardiogram.

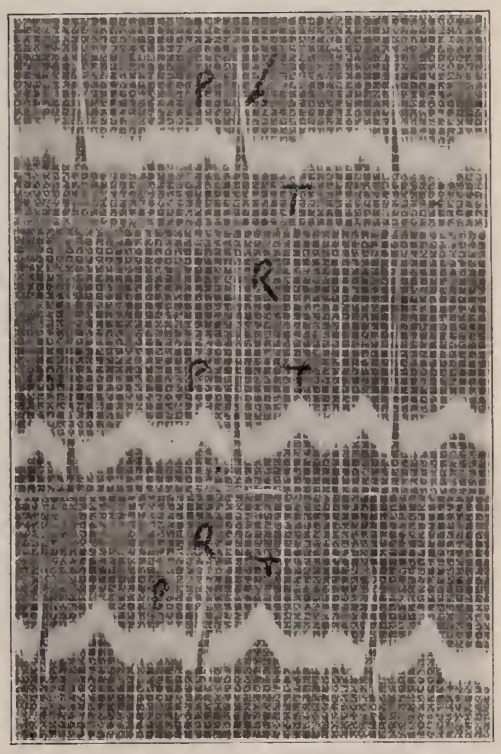


Fig. 3—This record shows the T wave turned downward in lead 1 and a notching of the R wave in leads 1 and 3.

When these pathologic changes are present within the heart they give rise to disturbances in cardiac function, which in their turn produce certain symptoms. Perhaps the commonest of these is appearance of the anginal syndrome in one of its manifestations. The attacks due to thrombosis of one of the branches of the coronary system are now readily diagnosed the angina of rest. The patient is taken with a pain in the region of the precordium or in the epigastrium, which is not necessarily severe, but which lasts for a considerable time—from one to several hours. This pain is accompanied by marked weakness and prostration, perhaps by sweating and perhaps by nausea and vomiting. Marked pallor is always a feature and this may be combined with a certain degree of cyanosis to give a peculiar livid appearance; pulse is weak although it may be perfectly regular; blood pressure is low, or if it has been previously high it may be found now to have dropped to a normal level; respirations are not always abnormal although in some cases there may be dyspnea. Examination of the heart shows the sounds to be faint, and there may or may not be an irregularity of the heart beat. In some patients there is marked congestion of the lungs with numerous râles, and these patients are short of breath. The typical picture of retrosternal pain with marked weakness and an appearance of shock will not be misunderstood after it has once been identified with coronary thrombosis, but it must be borne in mind that

sometimes this pain is not a conspicuous feature.

The patient who has narrowing of a coronary branch without occlusion will show another form of the anginal syndrome, the angina of effort. He will usually complain of a discomfort which lies behind the sternum, or perhaps slightly to the left, which comes on with effort or with excitement, and which may radiate throughout the area associated with angina pectoris; that is the left shoulder and arm, possibly to the side of the neck, possibly

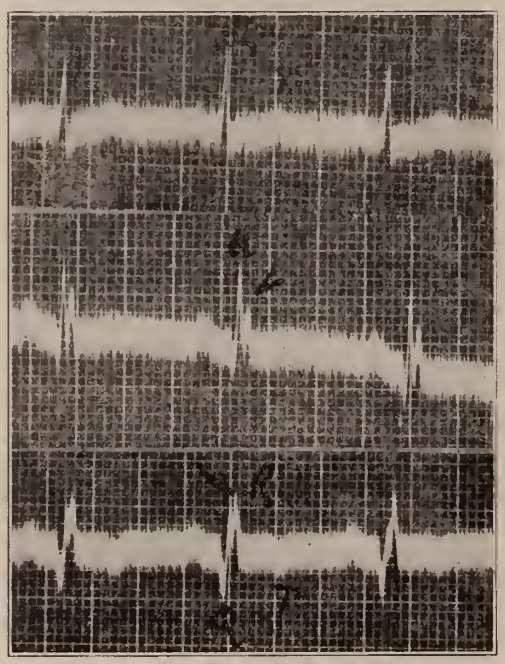


Fig. 4—Shows notching of the R wave in leads 2 and 3. The T wave shows a very low voltage, that is, a low amplitude in all the leads.

to similar situations on the right side. It is characteristic of that pain that it passes off as soon as the exciting cause is removed, that is, as soon as the patient abstains from the effort or removes himself from the exciting features which have bothered him. This pain is relieved by nitroglycerin; in contrast to the pain due to an attack of coronary thrombosis, which is not so relieved. Either of these manifestations of the anginal syndrome, the angina of rest or the angina of effort, may appear earlier in life than one is accustomed to seeing evidences of arteriosclerotic disease; they may be seen at any time after 35 or 36 years of age, although they are not common before 45.

A second manifestation of arteriosclerotic heart disease is the appearance of cardiac arhythmia; which may be present without any other evidences of disease. It may not be accompanied by symptoms, or the patient may feel the irregular heart beat as palpitation. Premature beats occur sometimes with great frequency, or they may occur but occasionally. Auricular fibrillation may occur either in brief attacks, a sort of paroxysmal auricular fibril-

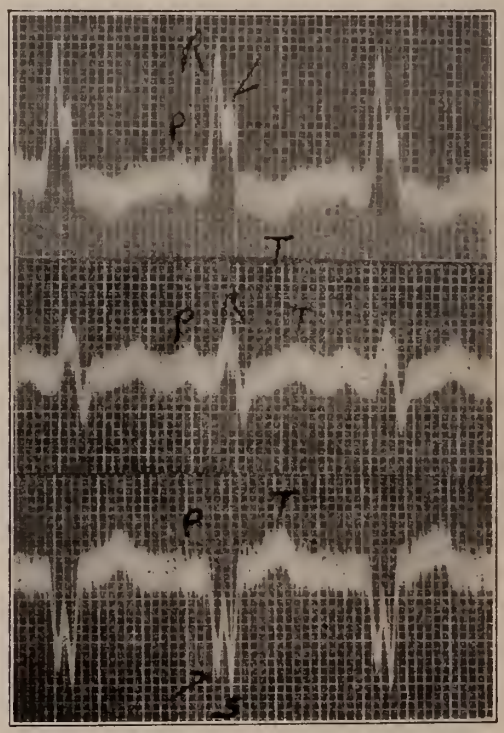


Fig. 5—Shows marked widening of the QRS group with notching and a downward T wave in lead 1. This is the curve which is known as the "Bundle Branch Block Complex".

lation, or its duration may be prolonged. In either case, there are often coincident symptoms of congestive heart failure. Auricular flutter occurs occasionally, as does heart block, and the latter may make itself known by the appearance of dizzy spells, or in a more severe form, fainting spells which come independently of effort or of any other feature. These are the Adams-Stokes attacks.

A fourth manifestation of arteriosclerotic heart disease is the appearance of congestive heart failure in some of its various phases.

Unusual shortness of breath on effort is the characteristic and typical symptom of this condition but sometimes, in lesser grades, it may not be apparent to the patient as shortness of breath, but only as a tendency to fatigue. Exertions which formerly did not cause fatigue or dyspnea now do so. As this condition progresses the patient's activity is more and more restricted by shortness of breath, and it may be that the chronic cough, which is so well recognized, will make its appearance and it may be that edema of the extremities will appear. These are symptoms of a more advanced or longer continued type of case.

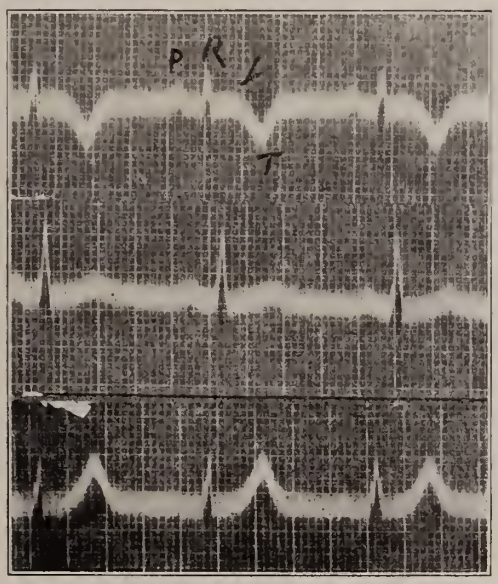


Fig. 6—Shows a downward T wave in lead 1 which has an upward convexity at the point indicated by the arrow. This is found as a result of coronary disease with narrowing or occlusion of a branch.

In addition to these 4 typical symptom groups, there are many patients who show atypical symptoms or who have combinations of these types. Some patients have the anginal syndrome, either of rest or of effort with cardiac arhythmia, others have congestive heart failure and arhythmia. Combinations of congestive heart failure and the anginal syndrome also occur, but are more rare.

The *physical signs* of arteriosclerotic heart disease come under 4 main headings and should be carefully searched for in a patient who shows suggestive symptoms. First, enlargement of the heart; second, arteriosclerotic changes in the aorta; third, changes in the first heart sound at the apex; fourth, changes in the electrocardiogram.

Cardiac enlargement is not difficult to diagnose when it is marked, but the differentiation of the normal heart from one which is slightly enlarged is worth discussing. If the apex beat can be felt, it gives us a reliable guide to the left border of the heart, and this should not lie more than 1.5 cm. beyond the midclavicular line. The nipple line should never be taken as a guide, for though it usually lies somewhat mesial to the midclavicular, yet it may be lateral to it. The midpoint of the clavicle should be determined and the distance of this from the midline itself carefully measured. When the apex beat cannot be felt, we must rely on percussion and it is necessary to emphasize that percussion of the left border of the heart should not be done with too heavy a touch. If the left border of cardiac dullness lies more than 1.5 cm. beyond the midclavicular line, it is fair enough to consider that the heart is enlarged, except in the very obese. The roentgenogram is a more reliable guide than is percussion, espe-

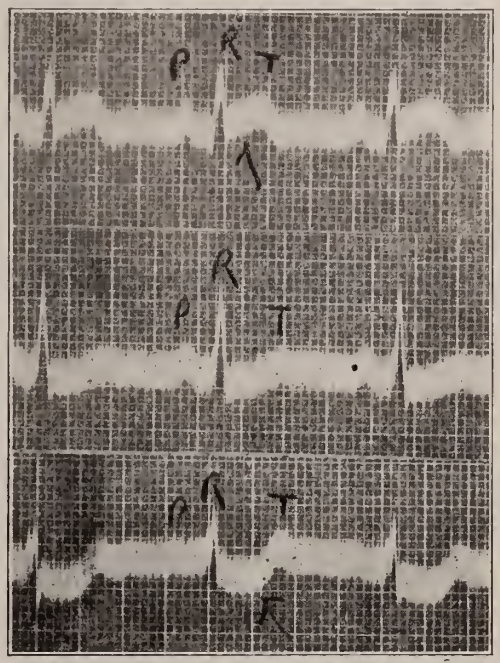


Fig. 7—Record of a patient who has recently had a coronary thrombosis. This record shows a peculiarity in the interval between R and T which is much below the zero level of the record in lead 3, and somewhat above it in lead 1 at the point indicated by the arrow.

cially in obese patients. The transverse diameter of the heart shadow in a picture taken with the tube 7 feet from the plate should not be over ½ the internal diameter of the thorax.

When cardiac enlargement is present, without there being any other cause such as valvular disease or high blood pressure, it indicates a certain degree of myocardial damage, and is usually associated with the murmur indicating mitral insufficiency. This murmur may be faint or may be well marked, but in any case it will be due not so much to a lesion of the mitral valve as to a sclerosis, thickening and shortening of the valve flaps, or to a weakening of the muscle or the mitral ring or of the papillary muscles.

The best evidence of arteriosclerotic changes in the aorta is obtained by a Roentgen-ray examination. There is a characteristic appearance of the aortic arch. If more than slight arteriosclerotic changes are present it will be slightly tortuous and perhaps dilated as seen in Fig. 1. This appearance is better recognized by fluoroscopic examination because the patient may be turned so as to obtain oblique views of the aorta. There is, however, a clinical sign which is of great importance in making this diagnosis, and that is the appearance of a ringing metalic quality to the aortic second sound. In the absence of hypertension this is a fairly reliable sign of arteriosclerotic changes in the aortic valve or at the root of the aorta. Mention should be made here of the fact that advanced arteriosclerotic changes of the aortic valve may lead to aortic insufficiency, but this is rare.

In certain patients the first heart sound at the apex becomes changed as a result of degenerative changes in the heart muscle or the mitral valve. It must be remembered, however, that there is nothing about these changes in the first sound which especially indicates arteriosclerotic disease; they may be due to other causes. They are sometimes present in patients who apparently have no heart disease at all, and so, when considered alone, they form an insecure basis for diagnosis of cardiac abnormality. The first heart sound may be faint. It may be sometimes so faint as to be heard with great difficulty. It is not meant to include under this heading instances in which the first heart sound is obscured by a systolic murmur, but only when in the absence of a murmur the first heart sound is faint. In other cases the first sound may be prolonged or reduplicated, as if composed of 2 or 3 closely approximated parts. In other cases it may have a normal quality but may be accompanied or followed by a blowing systolic murmur. A gallop rhythm is sometimes heard, and if carefully considered it will usually be found that the gallop is produced by a third sound which comes early in diastole, probably an accentuation of the normal third heart sound. I wish to emphasize that these changes are not diagnostic and, therefore, it seems important to point out their exact relation to the presence of myocardial changes. If any of these peculiarities are found they should make one suspicious of the integrity of the myocardium but without other signs or symptoms of myocardial disease they can not properly be made the basis of a diagnosis.

The most important physical signs for demonstrating degenerative changes in the myocardium are certainly found in the electrocardiogram. When the myocardium is normal, it produces with each contraction a series of electrical currents which give rise to the waves of the record. There are considerable variations between the records of different normal individuals, but there are certain peculiarities which are not produced by a normal heart muscle. Figure 2 shows a normal electrocardiographic record. It is seen that the P wave, which is due to auricular contraction, is upward in all 3 leads. The QRS, which is due to the beginning of the ventricular contraction, also has its chief excursion upward in the 3 leads. The T wave, which is due to the latter part of the ventricular contraction, has an upward direction in leads 1 and 2, but in lead 3 may be either upward or downward. In the Figure, it is neither of these but is isoelectric. Contrast this with the record of Figure 3, which shows normal auricular waves (P) but the T wave turned downward in lead 1. In this record the QRS group has normal width of its straddle upon the base line but shows a notching

or slurring of the R wave in leads 2 and 3. Figure 4 shows a record in which the notching is more marked and there is a widening of the QRS group. The T waves of this record are unusually small in all 3 leads. Figure 5 is a record with marked widening of the QRS group and marked notching, and with a downward T wave in lead 1. Records showing these peculiarities are produced by a myocardium which is the seat of disease changes, but may be obtained from a heart which is perfectly regular and which is not enlarged, and which shows no murmurs at any of the valve orifices. It may be the only sign of myocardial disease, and even without the peculiarities of the heart sound which have been mentioned it affords a sufficient basis for diagnosis of myocardial changes.

There is a peculiarity of the electrocardiogram shown in Figure 6 which occurs almost without exception in patients who have narrowing of one branch of the coronary arterial system. There is a peculiar upward convexity of the interval between the QRS group and the peak of a downward T wave, which is found often in this condition, and occasionally in acute rheumatic heart disease, especially if pericarditis is present. This change in the T wave appears when a branch of the coronary system is chronically narrowed, or it may appear at an interval of from 2 to 4 or 5 days after the thrombosis of a branch. Immediately after the acute attack of coronary thrombosis the electrocardiogram will usually show a still different and characteristic appearance, as seen in Fig. 7. The typical feature here is the fact that the T wave does not start from the QRS group near the level of the base line of the record, but from a point 2 mm. or more above or below the base line, as you see in leads 1 and 3.

The diagnosis of arteriosclerotic heart disease will be made in a patient who complains either of the angina of effort or the angina of rest; that is, pain will either come as an immediate result of effort or excitement or will come in the form of severe attacks when these exciting causes are not present. Other patients may complain of unusual shortness of breath upon exertion or a palpitation or both of these; or they may complain only of an unusual fatiguability. In these patients we should look for the characteristic physical signs—age of the patient; cardiac enlargement; a murmur of mitral insufficiency without rheumatic history; a ringing quality of the aortic second sound, or a faint or prolonged first sound at the apex; a gallop rhythm; cardiac arhythmia; or an abnormality of the electrocardiogram. According as one or more of these physical signs of myocardial disease are present we shall be more and more certain that the symptoms of which the patient complains are due to arteriosclerotic heart disease, and that we need look no further for their explanation. In the absence of these physical signs we must feel doubtful that the symptoms arise in the heart and must strive to find some other explanation for them.

THE PREVENTION AND TREATMENT OF SCOLIOSIS

A. M. Rechtman, M.D.,

Philadelphia, Pa.

Assistant Demonstrator of Orthopedic Surgery, Jefferson Medical College; Associate Surgeon in charge of Orthopedic Surgery, Atlantic City Hospital; and Orthopedic Surgeon of the Betty Bacharach Home.

Scoliosis, or rotary lateral curvature of the spine, is a deformity involving the spine and trunk. There are 2 varieties: (1) Functional; usually the result of faulty posture which can be voluntarily corrected by the patient. (2) Structural, in which there are fixed changes and voluntary correction is impossible.

Prevalence of the condition is illustrated by the series Whitman reported (Arch. Surg., 5:578, November, 1922) in which 12% of the children examined showed scoliosis of the structural variety. As this is the type most tending to exaggeration, producing even hideous deformities, and later in life causing considerable pain, it will here be discussed at some length. It is not only a painful deformity later in life, but one which shortens life; Kleinberg (Arch. Ped., December,

1923) reporting that only 2½% of patients showing marked scoliosis live beyond the age of 40 years. It deserves special consideration, therefore, as early recognition and treatment may prevent its progress.

Structural scoliosis primarily involves the bones, ligaments and muscles of the trunk, and, secondarily, the viscera of the chest and abdomen. Right dorsal structural scoliosis may be chosen as a typical illustration. The patients usually come for treatment because of a protrusion of one hip, elevation of a shoulder, prominence of one shoulder blade, or, the actual deformity may have been noticed by the gymnasium or school teacher, or the dressmaker, and less often by the parents, friends or the patient herself. Occasionally the complaint is of pain, discomfort or weakness of the back. Frequently the doctor notices the deformity in a routine physical examination. For the most part the patients are adolescent females, between 12 and 16 years of age and often quite robust. On examination, in the larger number of cases, the convexity of the curve is to the right. The back, on inspection, is asymmetric; the trunk inclines to the right, the right shoulder is higher than the left, the right scapula more prominent, the left hip (or more correctly, the crest of the ilium) is high compared to its fellow. The dorsal spine deviates to the right, and there is a mild compensatory curve above and below the primary curve. The ribs on the right, or convex, side of the curve are prominent, abnormally angulated, and project backward producing compression of the chest, lessening its capacity and respiratory excursion.

In marked deformities the percussion note at the area of angulation is flat. The ribs on the left side are flattened and their angulation and downward inclination diminished. The lung on the left side, where the chest capacity is increased, has greater aëration. The front of the chest is also asymmetric. The right side is flattened; the left projects and is prominent. In a left curve, these conditions are reversed. In a mild case, there is usually no pain nor sign of functional disturbance. In more advanced cases the ribs may telescope into the pelvis and functional disturbance of the viscera, such as derangement of the heart, lungs and gastro-intestinal tract may result.

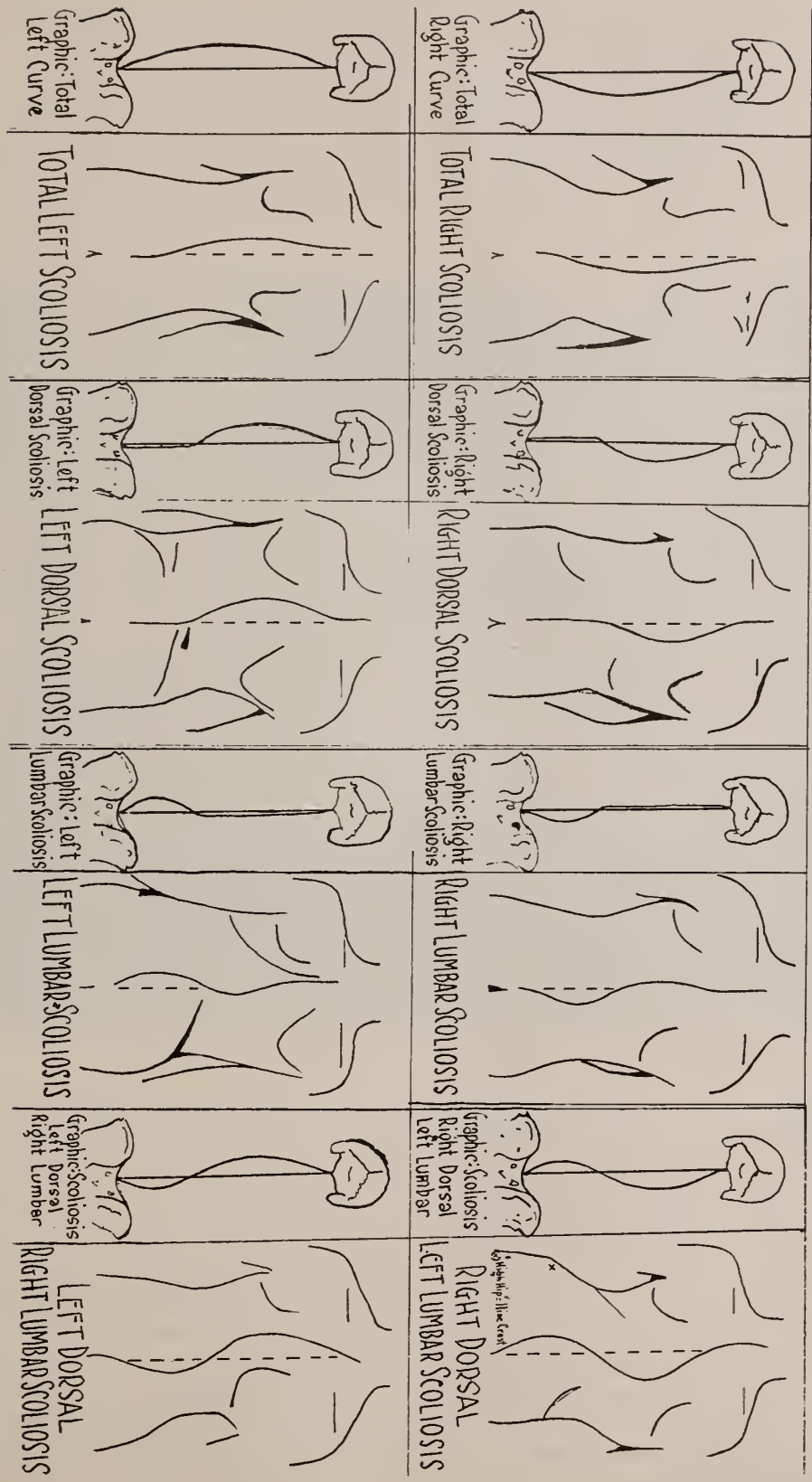
In a single lumbar curve, the chest may be unaffected and the asymmetry appear in the lower back. The right side of the back in a right curve is prominent, the opposite side concave; that is, the loin angle is increased, and the hip on this side is prominent or "high". This condition is often the result of a short leg.

The curves in a structural scoliosis may be single, double, triple or quadruple. In a double curve (right dorsal-left lumbar) the findings are a combination of the dorsal and lumbar curves as described above. Of the compound curves, the double is the most frequent, and of these, the right dorsal-left lumbar predominates.

The curves vary from the slightest deviation from the normal midposition to marked degrees of distortion of the trunk with telescoping of the ribs into the pelvis, and distortion of the contained viscera. Disability and suffering are seen usually only in the severe cases or in adults who even with mild curvatures have frequent backaches, or pains in the chest and abdomen. The characteristic features are seen in the drawing below.

The deformity of lateral curvature is composed of 2 component parts, a lateral displacement of the spinous processes from the midline as determined by a plumb line; and a rotation of the vertebras evidenced by angulation and backward projection of the ribs on the convex side of the curve. The mildest curves, though only slightly visible in the erect position, are exaggerated on flexion of the trunk which also exaggerates backward projection of the ribs and asymmetry of the trunk. This is true in curves of all degrees and in a stout person, a curvature may first be noticed with the patient in the flexed attitude.

The typical course of scoliosis is as follows: The age of onset is usually before puberty. In 50 cases operated on at the Ruptured and Crippled Hospital, the average age of onset was 8 years and 10 months. This is a low average, because statistics of the congenital variety, 6 years and 5 months, and those of infantile paralysis, 6 years and 11


GRAPHIC & CLINICAL SKETCHES of SPINAL CURVATURES
Graphic: Total Right Curve
TOTAL RIGHT SCOLIOSIS
Graphic: Right Dorsal Scoliosis
RIGHT DORSAL SCOLIOSIS
Graphic: Right Lumbar Scoliosis
RIGHT LUMBAR SCOLIOSIS
Graphic: Scoliosis Right Dorsal Left Lumbar
RIGHT DORSAL LEFT LUMBAR SCOLIOSIS
Graphic: Total Left Curve
TOTAL LEFT SCOLIOSIS
Graphic: Left Dorsal Scoliosis
LEFT DORSAL SCOLIOSIS
Graphic: Left Lumbar Scoliosis
LEFT LUMBAR SCOLIOSIS
Graphic: Scoliosis Left Dorsal Right Lumber
LEFT DORSAL RIGHT LUMBAR SCOLIOSIS

months, constitute only 10% of all cases of structural scoliosis. According to etiology, the idiopathic, which comprise 85% of all cases, average 11 years and 8 months. In the beginning the deformity is always mild; but, unfortunately, one rarely sees the patient until deformity has advanced sufficiently to be noticeable. The average age at which patients in this series presented themselves for treatment was 12 years and 3 months, or 4 years after the deformity was first observed. The only early subjective symptom is the deformity, and the reason for failure of early discovery, especially by the parents, is that the average child of 6 yr. dresses, bathes, and in general takes care of itself. Absence of pain is probably the chief reason why patients delay seeking relief.

Unfortunately, there are no definite means of judging accurately whether a curve will progress. Only a small percentage remain mild, unless treated. The severe deformities may also progress, even in the second and third decades of life and, therefore, should be treated.

The etiology of scoliosis is a matter of discussion. Kleinberg classifies the causes as 85% idiopathic; 5% due to poliomyelitis; 5% due to rickets; and 5% to such uncorrected conditions as unilateral disturbance of vision, hearing, torticollis, empyema, short leg, congenital malformation of the ribs and vertebras, persistent faulty posture, and certain nervous disorders (hemiplegia).

Buchman (Arch. Surg., 13:568, October, 1926), during a general study on epiphysitis, found reason to believe that the so-called idiopathic group belongs to the same family group (epiphysitis) as Osgood-Schlatter's and Perthe's disease. The idiopathic, or perhaps better the vertebral epiphysitis or Buchman's disease, may have its active pathology in the body epiphyses as an inflammatory condition due to a focus of infection elsewhere in the body.

In cases due to anterior poliomyelitis, if the paralysis of the back or abdominal muscles is unilateral scoliosis is apt to occur and progress to a marked degree; if untreated.

Rickets cases are, to some extent, preventable by diet and hygiene and should not be neglected; as the curvature usually begins early in life, progresses rapidly and is very resistant to treatment.

The aim of treatment, regardless of what form it may assume, is first to correct the deformity, and secondly, to maintain the correction. To achieve this, the patient must be under observation and active treatment for several years until the internal architecture of the soft tissues, as well as the bones, has been corrected so that the tendency to recurrence of deformity will be reduced to a minimum. Treatment may be carried out in many ways, some of the best of which will be mentioned.

To correct deformity with plaster jackets, plaster is applied with the body suspended, using its weight to straighten the curve, and also removing the force of gravity. Lateral traction bands are placed over the convexity of the ribs, and counter traction above and below. After correction is once obtained, plaster, celluloid corsets, or spinal braces should be worn, and together with gymnastic exercises will help to maintain the correction.

Another excellent method is correction of the deformity by recumbency on a convex, stretcher canvas frame, and maintenance of the correction either as in the previous method or by a fusion operation of the spinal vertebras.

Correction of the deformity, if the patient is to be ambulatory, is perhaps best performed by repeated application of the corrective plaster jackets. The plaster is cut over the hollow portion of the chest and back and the patient instructed in breathing exercises as an aid in expanding this side of the chest. The jackets are renewed about once in 3 months; added correction of the deformity being attempted at each application. Correction of any scoliotic deformity is only possible to a certain maximum; beyond this, deformity takes place in the opposite direction. The maximum correction obtained by the plaster treatment is reached in 6 months to 2 years, depending upon the resistance and severity of the deformity.

A more rapid means of correction, and one in use at the Ruptured and Crippled Hospital in New York since 1920, is recumbency on the convex stretcher frame. The patient is

placed on a canvas frame the convexity of which is opposite the point of greatest convexity of the spine; traction is applied to the head and pelvis by means of a Sayre halter and a pelvic girdle; lateral traction with flannel or canvas bands, and counter traction with the ropes running over pulleys attached to a Balkan frame. A child of 14 is usually very comfortable with a traction of 50-70 lb. Maximum correction is obtained in 4-8 weeks.

Application of the frame is shown in the photographs.

Patient lying on a convex stretcher frame, with traction on the head and pelvis.

Comparison of Frame and Plaster Correction of Structural Scoliosis

Treatment by the frame possesses the following advantages over plaster: (1) A maximum correction is possible in 4-8 weeks on the frame, whereas plaster requires 6 months to 2 years.

(2) Recumbency on the frame increases the lateral diameter of the chest and so the expansion. The pressure on the back lessens convexity of the ribs and pushes them forward, expanding the contracted side of the chest so that it approaches symmetry.

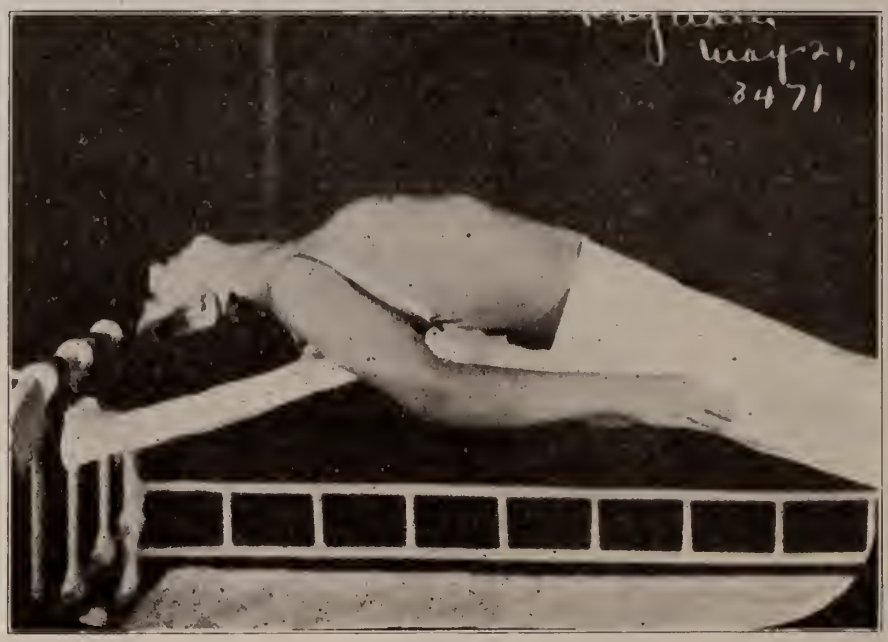
(3) Hyperextension improves the posture as the deformity is less prominent in this attitude. It also tends to reduce the compensatory curve and lessens resistance of the primary deformity.

(4) Superincumbent weight and the force of gravity, which increase the deformity, especially in flaccid backs and those in which the etiologic factor is anterior poliomyelitis, are eliminated by recumbency. The skin is in a healthier condition when exposed to the air, and bathing is possible. The patients read, eat and spend all their time on the frame, to which they soon become accustomed.

Plaster is also applied with the patient in extension. Radiograms after recumbency show a lengthening of the spine as compared with films taken before treatment. Improvement in the external appearance is associated with a reduction in the lateral deviation and the rotation.

Operative Treatment

The indications for operation in structural scoliosis are: (1) Increase of the deformity which occurs at times even with the patient in plaster. (2) Pain and discomfort. (3) Inability to withstand plaster treatment. (4) A desire to decrease the time of treatment and the time necessary to wear apparatus, and to maintain and insure correction of the deformity.



Note the chest expansion. Patient lying on a convex stretcher frame

After a maximum correction of the deformity, the patient is removed from the convex stretcher frame, or, if treated with plaster, the patient is placed on the frame until accustumed to it, and the back is prepared for performance of a spine fusion of the Hibbs-Forbes type. The vertebral segments of the primary curve are fused by doing a subperiosteal stripping of the spines and the arches; the interarticular facets are destroyed; bone chips are raised from the arches; the interlamellar spaces are curetted and the spinous processes fragmented; the soft tissues are closed. The patient is placed in bed in the prone position and after the wound heals is replaced on the frame for 6 weeks. A plaster jacket is then applied with the patient in suspension and a few days later the patient is discharged. Jackets are worn 6 months to 1 year and as the motion in the operated area is limited support is discontinued. Massage of the extremity during the entire treatment allows the patient to begin walking with only very slight discomfort.

Summary and Conclusions

The frequency of scoliosis, its early onset, the fixed deformity of the spine and trunk, and the tendency of many cases to progression with secondary distortion of the chest and abdominal viscera, have been briefly considered.

While some cases may remain mild in degree, it cannot be foretold which will progress and which will not. It is advisable, therefore, to begin treatment early and keep all patients under observation for a long period. Approximately 70% of cases can be improved, and practically all can be arrested.

Treatment should be started early, especially if the deformity is an increasing one, as it is easier to prevent than correct deformity. The less marked the deviation and rotation, the more nearly symmetry may be approached by treatment, the increase of the deformity which prevents secondary distortion of the viscera forestalled and, so, a longer, more comfortable and healthful life made possible.

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.
Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE:
CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:
HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

RECENT ANNUAL MEETING

It has become a habit now to report each successive annual convention of the state society as "bigger and better" than its predecessors. The record of growth continues unabated and the Atlantic City meeting in June showed the largest registered attendance in our history; a total of 1065, including members of the Woman's Auxiliary and guests. The actual number of members registered is 459, but we personally know of a good many physicians who were present but whose names do not appear on the registration report, and we believe the membership attendance reached, if it did not pass, the 500 mark.

Of greatest importance is the fact that an entirely new Constitution and By-Laws was adopted. This question having been before the society for 3 years and in the hands of a special committee for 2 years has been most carefully studied. Every effort has been made to effect conformation of these provisions with our ancient charter, and to construct a set of rules applicable to modern conditions.

The change which occasioned the most concern to everybody was abolition of "permanent delegates" from the county societies. It will be remembered that it was criticism of the legality of these positions that led ultimately to the decision to revise the organic law. It appears that the creation of permanent delegates, some years ago, was mainly for the purpose of assuring larger attendance at the annual conventions; members who had shown devotion to county and state society work were honored by this special title, subject to withdrawal if they failed to continue in active service. It has been declared by counsel that the procedure was illegal; but it certainly was effective and practically beneficial to the organization. Now the fear naturally arises that in abolishing this list of active workers—in so far as the title is concerned—we may cause some of the older delegates to lose interest in the society's affairs. We hope that will not result; indeed, we feel almost certain it will not. The old "dependables" will continue dependable just so long as they are wanted and they remain physically able to respond to the call of duty; of that we can be sure.

From now on we shall have but one class of delegates, elected periodically by the component county societies, but under the apportionment of the new order there is ample room for and nothing to prevent each county society choosing its entire list of former permanent delegates to constitute a part of its regular delegation. Doubtless this will be done generally. It will be a legal and a wise course to follow, as it will maintain the attendance advantages of the old scheme and will prevent any heartburnings over lost recognition.

Many other happenings of the convention deserve special mention but we shall have to reserve such comment for future editorials; the entire transactions will, of course, be published during the summer.

The scientific programs and the social entertainments were of the highest character.

Collateral Medical Reading

THE ART OF THINKING

Ernest Dimnet

(Reviewed by the Editor)

The fact that a book demands 5 reprintings in the course of 2 months does not necessarily stamp it as of inestimable value to readers, for many so-called "best sellers" have attained that point by virtue of clever advertising and have offered little of value to the reader, but in this instance the attained popularity is justified. Not every one who reads it will become a deep thinker, for possession of machinery with which to think is a prerequisite, but every reader capable of doing serious thinking will find in this little book a large series of delightful and helpful suggestions.

Naturally, a goodly number of reviews of this book have already been published, all of them, we may say, being very favorable and tending to encourage an increase in the host of readers. The one appealing most strongly to us was written by Professor John Dewey, of Columbia University, as follows:

"Some books lend themselves to reviewing; they seem made for that purpose even more than to read. Abbé Dimnet's little book is not one of these. He gives ferments rather than recipes; he has practiced the art of thinking until its product is itself a work of art. Before a work of art one is likely to be dumb or to indulge only in ejaculations; and when asked why one likes it, to reply 'Go and see for yourself'. That is the way I feel about this genial and witty book. I would say to the reader, 'Taste it, try it for yourself. Keep it close at hand, read a page or two, a paragraph, opening at random. Browse about in it; read it consecutively. Keep it on a bedside table and read it to compose your mind at night and to arouse it in the morning'. And in answer to the question, 'Why?', the best reply I can make is still, 'Try it and see'. For the book is compact with the wisdom gathered in years of observation of himself and of others.

The reader finds in it suggestions of ways by which to estimate the quality of his own thinking. The suggestions probe deep, and unless one is willing to face himself he would do better to confine himself to the easier task of checking the list of qualities on some efficiency chart. The reader finds also an account of the causes that have produced a decline in native turn for genuine thought—for all normal children up to 10 years of age or so, can think, because they see for themselves. And after the diagnosis of disease, there are remedies provided, 'Helps to Thinking'. One may at first be disappointed in finding the secret of the entire art put in a sentence: 'The art of thinking is the art of being one's self'. But if one comes back to the book often enough, and if after tasting frequently one absorbs and digests, that one will, I am confident, find in his interpretation of the sentence a revelation of himself that will lead him, if he will only permit it to do so, to serener intellectual heights than he has known.

There are at least a dozen of suggestions offered, any one of which, if taken, will lead to improvements of mental habitudes. Among them are 'conjuring up a suitable background'; reading only what gives the greatest pleasure; going repeatedly over what one already knows, and so on. But the point that I think I cherish most highly is that Abbé Dimnet has had the courage to insist on the connection between capacity of thinking and the qualities that are usually called moral. He does not preach, but no one can read the book in the spirit in which he recommends that every book should be read, and not realize that sluggishness, parasitic dependence upon others, slackness of taste, and similar defects of character cause more deficiencies of mind than do lacks that are distinctly intellectual in origin. If there are those fortunate enough not to need any of the counsels that the author gives, I still urge them to read the book if only to make the acquaintance of an experienced and deeply wise personality."

Dividing his subject into 4 parts—what constitutes thinking, obstacles to thought, helps to thought, and creative thought—Dimnet analyzes the art of thinking and carries his story in a manner as interesting as any romance. Among "obstacles" he classes our present educational methods, the predominance of athletics over scholarship, and our hasty efforts to acquire a superficial smattering of knowledge; deploring the fact that: "We have been weakened to death by fiction so that reading has not only lost its former majesty but has changed its very meaning. It is now mentioned, along with smoking and playing cards, as a semiphysical relaxation; the notion of a definite purpose in giving one's self up to it is excluded. The real purpose hidden under the gregarious act of reading is *not to think.*"

The most important help toward thinking is embraced in his advice about mental concentration, and concerning this he offers many valuable hints; concluding with—"if you know how to concentrate, i.e., how to use the keen edge of your mind, having time and possessing the tool, you will only need good material for thought."

Medical Economics

CONSERVATIVE NEW ENGLAND ADOPTS THE CREDIT BUREAU

Warner A. Barton

(Reprinted from Medical Economics, Sept., 1928)

For some time the Manchester Medical Association has been considering a plan whereby each member might benefit by the experience of others along credit lines, and during the past year has organized what is designated as the Physicians' Service Bureau, under the direction of a committee appointed by the association, and operated by a competent manager.

The objects of the bureau are the reduction of losses caused by extension of credit to undeserving persons, and the collection of delinquent accounts for members. It is the duty of the manager to receive from members, classify, arrange and file, all possible information relative to the extension of credit, and to provide all members, from time to time, with credit reports based on information thus obtained.

To cover the necessary clerical expenses, a small fee is charged for admission, and at the present time the Bureau has enrolled about 50% of the members of the association. That is a very good showing, considering the short time it has been in operation. The members of the bureau are very enthusiastic over the results already attained.

The first activity of the bureau is prevention of undesirable credit risks. Up to now, more than 2500 credit reports have been filed, and it is in a position to furnish accurate credit information relative to this city and the surrounding territory. All information gained by the bureau is confidential to its members and cannot be imparted to outsiders or commercial interests. Under no circumstances will the source of any information be divulged by the manager. Credit reports cover all cases to date of issue.

The second function of the bureau is the collection of overdue accounts, and for this a small commission is charged. The system perfected has been productive of satisfactory results. The bureau maintains correspondents throughout the United States and Canada, and the system of forwarding collections insures reliable service to members. It has recently established a letter service, relative to the collection of accounts, and it is proving most effective in getting results on some accounts considered among the hardest filed.

During the past 4 months, accounts totaling $17,229.79 have been received for collection. The majority of these were very old, many dating back to 1920, the parties having left the community in many cases without leaving any address. Through the Bureau's system of handling these cases a large number have been located and satisfactory adjustments made. Of the above mentioned amount, $1,846.75 has already been received and more than double this amount is now in process of liquidation.

As its merits become known, it is expected that the entire membership of the association will be enrolled in the bureau. We would be glad to see such a service put into operation in other communities, and will be pleased to render any aid in our power in the establishment and operation of such bureaus. A State Medical Credit Bureau, under direction of the New Hampshire Medical Association, and operating in all parts of the state, would be a great boon to the profession in New Hampshire.

Esthetics

I WILL LIFT MINE EYES UNTO THE HILLS

(Reproduced from The Kalends, Williams and Wilkins Co.)

So sang King David at Jerusalem, when in the midst of the turmoil, dust and heat of his metropolis. It may be that from a coign of vantage he gazed down upon the ebb and flow of the tide of humanity streaming through the hot and glaring streets. Possibly he saw, even as you and I often do, the disillusioned faces, the weary expressions, and the tired eyes—all eloquent of the trials of life. Then

it was that he probably wondered at and speculated upon the reason for it all.

Pride and humility, vice and virtue, selfishness and self-sacrifice, every human trait, were limned upon the countenances that passed before him. And as he pondered and questioned he was overwhelmed by the futility of his reasonings, and he turned his eyes toward the olive-crowned hills beyond the city and gained spiritual sustenance from them.

In seeking the resuscitation which we too flippantly call "getting back to Nature", we should seek a stimulation which is spiritual as well as physical. Spreading pastures, green trees, and blowing flowers all declaim sermons beyond the power of human tongue to utter. The whisperings of the rural winds, the clear, free call of the birds in the wildwood, and the pageant of the fire-flies all present evidences of an Infinite far beyond the conception of a finite mind.

In the visible aspiration of the distant green hills there is a something which has a power beyond our ken to lift us up, to rekindle the fire in our tired eyes, to quicken both our hearts and our minds, and to help us resolve to cast out all the mean and petty thoughts which have crept into our souls with the grime and dirt of the city.

So as we go upon our vacation let us cast our eyes, like David of old, upon the hills and seek therefrom the strength that was David's —spiritual as well as physical.

Medical Ethics

SELLING IGNORANCE

(An editorial from The Saturday Literary Review, Feb. 16, 1929, reproduced because the argument is so appropriate to much that concerns modern medicine.)

Ignornace is either static or dynamic. It is at least relatively static in the present type of man who is bound to his own narrow field of influence by all the limitations that accompany illiteracy and the lack of industrial power. If he is ignorant and prejudiced, he can do little to infect others beyond his neighborhood. His field of ignorance is static. But given literary and economic power and the results of ignorance get wings. An irresponsible press is like a wind bearing dust germ infected. There is no catching up with a lie or a misstatement. Arthur Ponsonby's recent book on the lies of war propaganda is evidence of how the uncritical or prejudiced mind takes up a lie and turns it into currency. The discussion of the recent naval bill, both inside the Senate and outside, has revealed what areas of dangerous ignorance, not static, but dynamic through every power of publicity, exist in a semi-civilized country. It is not the controversial questions—Is a strong navy indispensable? What constitutes parity? How can war best be avoided?—which suffer from dynamic ignorance. Wise men, well informed, may readily differ there. But one would have supposed from some of the comment that the speakers and writers had never read a book or a responsible article since 1914 —and perhaps they had not. "England gained control of two-thirds of the habitable world as a result of the war." "The way to prevent war is to have a navy or an army stronger than all other armies and navies." "Preparedness for war has always saved lives." "The United States has never fought an offensive war." "Neutrality can be preserved by treaties, but treaties cannot prevent war."

The truth of the matter is that we in this country are suffering from the sales complex. There was always ignorance of the few facts that it is permissible to be sure of, here as much as elsewhere. But we had not learned to sell our ignorance. Now we are all salesmen—or if not, are urged to be. Salesmanship is the best rewarded of industries. Most of the young men are going into it. Advertising has reached its high technic as its tool. Subconsciously we are all infected with the idea that "getting a thing over" is more important than the nature of the idea or thing. One would say that only a child would be taken in by the advertisements of the absolute superiortiy of certain widely boosted products, by the clarions in print declaring that culture, languages, success, can be bought by a coupon and the minimum of endeavor, or by the guarantees of happiness and content offered by mail for the trouble of saying "yes". But it is not the children who rush to buy. Ignorance has become dynamic. It can move to its bait, it can pay for its sedative, it can read and write.

Let us not cheaply relieve our feelings by execrating the agents. Senator Heflin, who believes that the cross is propaganda for Roman Catholicism, is presumably a representative of his constituency, otherwise he would not have been elected and reëlected. The writers of the cigarette advertisements are reacting to credulity in a fashion which

psychology explains if it does not approve. The sales technic, which by its very purpose emphasizes results rather than causes, is here to stay. Heretics and the orthodox alike would have used modern methods in earlier days if they had possessed them. Had the Inquisition possessed a press, it would have made less use of fire. If there had been a broadcasting station in Paris of, say, 1802, Napoleon would have needed fewer armies. It was static ignorance that saved the world from calamity quite as often as it held back civilization and blocked progress.

There is no cure for this disease except more of the same. Where falsity and ignorance come to us by the printed word, the only recourse is more and better reading. The argument is not that we should become a nation of bookworms; but it should be powerful for a minority at least of readers who do not wish to be sold half-truths and no-truths, and are willing to protect themselves by at least a moderate knowledge. The man with a sales mind gets his facts as salesmen do in a conference. They are told what they need to know in order to sell something. He learns what he wants to learn, and immediately broadcasts it. He is immune to argument because he has no idea of where to look for facts, and has never acquired the habit of looking. It is complained that too many books are published, too many magazines printed. Doubtless, but that too many good books and good magazines are read would be a conclusion no observer of contemporary opinion would ever be likely to form. Thousands of books, tens of thousands of articles, on the Great War have been published, and yet its most elementary lessons as to what brings on war and how it might be avoided, and as to what constitutes modern war and what it must mean for the warring community, seem to have made no entrance at all into the minds of the vast majority of citizens. They can still be sold militaristic ideals that were discredited (though not disused) by 1800, and conceptions of war, its nature, its methods, its probable results, which were stale by 1918. Ex-Admirals talk with a background of political conceptions that Erasmus would have sniffed at, and at the other extreme, ardent pacifists sell non-resistance with a complete disregard of the most elementary psychology. If the oncoming generation is decimated and the hopeful promise of this continent blighted, it will be, essentially, ignorance, remediable ignorance, that is responsible.

In Lighter Vein

Respected Infant

"Dear miss," wrote a particular mother to the teacher, "don't whip our Tommy. He isn't used to it. We never hit him at home except in self-defense."—Herald of Gospel Liberty.

Science of Left-Overs

"What are you studying, John?" asked Aunt Maria.

"Economics."

"I don't see no use in studying that stuff. If it's forced on you, you gotta practice it."—Louisville Courier-Journal.

Raising the Limit

"I'se for a five-day week. How 'bout you, Sam?"

"Man! I'se for a five-day week-end."—Vancouver Province.

Journey's End

Lady (in a pet store)—"I like this dog, but his legs are too short."

Salesman—"Too short! Why, madam, they all four reach the floor."—Mugwump.

Be a Sybarite

Built-in bathtubs, tile floors, new Simmons Steel Furniture. All the luxuries of an efete culture and an intensive civilization.—Ad in a Lake Worth (Fla.) paper.

Touch Artist

Janet—"Jack says he can read you like a book."

Olive—"Yes, and darn him, he wants to use the Braille system."—Life.

Familiar Reactions

As soon as day begins to dawn
The meadow-lark starts singing.
As soon as evening comes, a star—
The angel's lamp—starts swinging.
As soon as I am in the tub
The telephone starts ringing!
—California Pelican.

"To avoid trouble and insure safety, breathe through your nose," states a doctor. Yes, it keeps the mouth shut.—Wall Street Journal.

Mr. Max C. Fleishchmann is having a million-dollar private yacht built at the Krupp Works in Germany. All of which goes to show the benefits of eating yeast.—Judge.

A young man who had taken his Ford out on a cold wintry day was covering the engine with a blanket.

Little boy (looking on)—"Don't cover it up, mister, I saw what it was."—Rock Island Magazine.

Dibbs—"Have you seen one of those instruments which can tell when a man is lying?"

Higgs—"Seen one! I married one!"—C. C. N. Y. Mercury.

Communications

THE LAND OF THE YEN

(A letter about Japan, April, 1929, from John Hammond Bradshaw, M.D., F.A.C.S., of Orange, New Jersey.)

Japan is a range of submerged mountains, with only their peaks projecting above the surface of the sea, situated just east of the continent of Asia. In this manner, Nature has produced 6 large islands, chiefly called Nippon, and sprinkled about in close proximity almost 4000 smaller islands. A short distance from the eastern coast the land drops in the sea to a depth of about 7000 fathoms, or about 5 miles. Not what you would call good anchorage! The contours of this sea bottom are ever changing, due to volcanic disturbance of the earth's crust. A people living on the edge of a chasm of this depth are naturally exposed to frequent earthquakes, for if the sea could but be drawn away from the land they would find themselves really living on the peaks of high mountains with most unstable foundations. When a "fault" appears, as it did one minute before twelve o'clock noon, September 1, 1923, whole cities and towns may absolutely vanish from the earth and the slaughter of the inhabitants amounts to hundreds of thousands of lives; snuffed out in a minute or in an hour of time. Were not the victims of Sodom and Gomorrah less than those of Yokohama and Tokio in this last calamity?

One would naturally think that a people living thus on the edge of a crater, as it were, and exposed to periodic occurrences of this nature, would move to some more stable and more hospitable shore. But this seems not the way of the world. Has not San Francisco almost doubled in size since its great earthquake? And other countries, like Italy, projecting volcanic arms into the sea, have continued after many calamities to populate even those very areas where history records and science foretells great disasters. And, at this, one does not even wonder after even a short visit to Japan. Nature has given Japan a temperate climate. Her seas are teeming with edible fish. Although about the latitude of New York, because she is washed by the warm Japan Current, much like the Atlantic Gulf Stream, she can grow in her southern boundaries almost tropical produce, while her naturally rich alluvial soil grows among many other things rice, wheat, potatoes, tea and tobacco. Here we find the wonderful bamboo, not only so necessary for building, but even affording as bamboo sprouts a delicious food; bananas, apples, peaches, oranges and grapes grow well, to say nothing about affording a perfect habitat for mulberry leaves, without whose digestion silk from the silkworm could not be obtained; and Japan makes over one-third of the silk of the whole world. Coal, oil and copper, but no iron, come also from Japan.

It is no idle flowery figure of speech to speak of Japan as the "Flowery Nation", for at different seasons, chiefly in the month of April, her fields and parks and even her craggy mountains, take on such exquisite hues of white, red, purple and pink that people come here from distant lands to see a flower show not made by hands but made, as it were, by nature in most appealing compensation for the suffering exacted on her people by Nature's "faults".

The people of Japan are a remarkable race. When Perry opened the country to the world and to civilization, Japan, a hermit nation, had for centuries shut her door. Even shipwrecked sailors of other countries, in their dire extremity, were tortured and even killed, and all trade with others was an impossible thing. Score one for American diplomacy! Now there is no nation that can show a better record for so short a term of years (70 years) since the opening of the country. A nation of over 75,000,000 souls is crowded into small space. Her population is increasing at the rate of 700,000 a year! The average Japanese family has about 6 children and families of 10 to 15 children are not uncommon. The average duration of life in Japan is about 10 years less than in the United States. The birth rate is 34 per 1000 (the largest in civilized nations). But the rate of infant mortality in Japan is also remarkably great. In England, the infant mortality is 10 per 100 births; in Japan it is 17 per 100. Here again rises the problem of birth control. If the lives of so many infants are to be wasted, would it not be better that some were never born?

Japan stands today fifth of all nations in wealth per capita, America standing first. (I have not at hand the figures.) About 48% of her population cultivate the soil. But we must remember that we see about 40% of the toilers in the fields to be women. Here we find *intensified* farming in all its branches. The country is volcanic, and mostly mountainous, with narrow deep valleys and rushing streams. The rivers furnish little navigation but are used with great intelligence and skill for irrigation and for the production of "white coal". Rice must grow in mud, and Japan's paddy fields are a great feature of her landscape. One sees no cattle, for the few herds of cows in the country are stall fed. Farming implements are primitive to a degree and worked by hand labor. One seldom ever sees a horse or an ox in the field. Their whole farming is, in fact, much like our truck farming. The plowing is here done by hand. There are few fences, but high dykes of mud one foot wide separate each little patch under cultivation. These little farms may be only 50 or 100 feet square. I am told the native love for the soil makes the Japanese farmer's a contented and even a happy lot; although they work from sun to sun for less than 50 cents a day. As the train slowly passes the paddy fields, the girls with their brown, bare legs ankle deep in the mud, smile at the passing train (a thing I never have seen among the peasants of Europe), and if you look closely you will perhaps see one resting and lighting a long small-bowled pipe. Their chief diet is rice. Not infrequently one will see a worker with her baby strapped to her back, hoeing her own row as fast as any of the others. These Japanese babies, although their mortality may be high, because of their great numbers, always look ruddy and healthy as they peer at you over their mother's shoulders with their black, beady, slanting little eyes. I never heard a baby cry all my 3 weeks in Japan, and I must have seen thousands of them. They are generally nursed till nature dries up the milk, and then they are given rice and even other solid food. But their chief salvation is in their outdoor life. They are seldom left at home. Wherever the mother goeth, there goeth

the baby also, slung on her back, out into the air and the sunshine and even into the rain.

Contrasted with other nations of the Far East, the Japanese are a happy race. They are optimists, but, as is not unusual, they mix their optimism with fatalism. They have a high artistic sense. Their artistry may not correspond with out western idea of art, but with it is born their great love of nature and their appreciation of the beautiful. Their botanic values are true, their landscape gardening is their own, maybe in miniature, but we must remember that mere size does not appeal to them as it does to portions of own country.

In stature the Japanese are rather undersized, but this is more than compensated for by a sturdy and stocky build, with considerable powers of endurance, making them good workmen, with great imitative ability. They are good soldiers. This was demonstrated in their recent wars with China and with Russia. They can produce men of high scientific ability, as seen in Drs. Noguchi and Takamina (in our own country)—scientists who would be a credit to any nation on earth.

The women are better looking than the men. This is not gallantry but a statement of fact. The girls of Japan look far better in their own native garb and costume than they do in European dress. Their high check bones show Mongolian origin; even as do our North American Indians. Their feet are small and they do not bind them as do the Chinese—their *gitas*, or sandals on stilts, which they retain on the foot by a little strap between the big toe and the rest of the foot naturally spreads the foot, makit wide but not long. Their hair is always black and, if done in native style, is a work of art, with those high architectural puffs. I am told that it takes about 2 hours for the Japanese girl to dress her hair, and seldom can she do it in the best style herself. Little ornaments and funny little combs complete the picture which, with their slanting black eyes (iris and pupil about the same color), make an altogether charming effect. Their eyes always seem to me to be about half shut, but I believe that little escapes their notice, as often passing in my ginrickashaw I would be greeted with a dimpling smile, a little nod, or wave of a tiny hand. They come of a very clean race; about half the populace in warm weather are barefooted, but the gita protects the foot, which is always clean. I do not believe that there is a corn in the whole nation, as a fellow American told me he spent 3 hours in Tokio in vain search for a chiropodist. Their bathing is almost a rite and may take place several times a day. I passed a well-to-do house one day, when taking a walk, and saw the lady of the mansion in her front yard, standing upright stark naked in her bath-tub, her whole anatomy visable from the ankles up. She gave a little twisted smile, but calmly went on soaping herself. It is the custom of the country. On the male side of the line, the ladies of your party may be a little shocked to see a passenger take off almost all his clothes opposite your seat on the train, carefully fold them up and place them in the rack and sit complacently and with a sigh of relief in his "undies", read his paper, and survey you with a childlike innocent stare. Neither does either sex hesitate an instant to relieve the calls of nature in public. I do not say this latter occurs in the higher circles, but it is frequent enough to be a little embarrassing.

So much has been written about the Geishas that perhaps little more need be said. But being of a naturally inquisitive turn of mind, I required a near view. Finding at the Imperial Hotel, at Tokio, a taxi with an English-speaking chauffeur, I told him I wanted to see Japanese night life; not of the second or third class, but of the first class variety. I specified that I did not wish to go to tourists resorts, but where I would meet only the Japanese. We first went to a little hotel where a dance was in progress. The girls were very young and very pretty and only wore their Japanese costumes. The music was good. Being introduced to almost a dozen girls I found that they knew all the modern dances much better than did your humble servant. But these were not Geisha girls, and the next place we visited I had a Geisha show staged (for a consideration) for my sole benefit. I entered an almost bare room, with fine matting on the floor, and all the walls well screened. A single table, highly lacquered, occupied the center of the floor, the only piece of furniture to be seen. Having left my shoes (under compulsion) on the sidewalk outside, I was permitted to enter and sit on my haunches before the little table, which was only 4 in. high from the floor. I was next supplied with an almost unlimited amount of *sake*, the national drink. But I soon discovered that my capacity was limited as its alcoholic content is about 15%. After about 15 minutes, 4 Geisha girls came in. They were beautifully coiffeured and dressed in hand-embroidered kimonas. They first all knelt down before me and touched the matting at my feet with their foreheads. I asked their age (not so impolite as it sounds, as they could not understand me) and was told each was about 15 years old. But we must remember a Japanese girl is one year old the day she is born. They were surely fresh and young looking with a little round dot of carmine on the lower lip. Japanese girls powder the back of their necks instead of their noses; an excellent plan, as they draw the kimona quite high.) Two girls with their tiny hands slapped with their palms and fingers two queer little drums apiece while the third played on a square box of a little banjo with an ivory stylet. They all sang the funniest little squeaky song I ever heard. I am sure my ear was not educated to its beauty. The fourth little girl came over and sat down very close to me and took my hand in hers. (I suppose there was fear that I might escape.) The two drummer girls next danced their characteristic Geisha dance. It is most chaste. Most of the dancing is done by the fingers rather than with the toes. I appreciated this graceful waving of the arms and hands and the queer little steps rather handicapped by the long trailing kimonas fully as much as the shrill little singing voices. Their *obies* (the bunch of silk material over the small of the back) are quite a feature of the costume, as is always seen in the pictures.

I was next informed that I was to partake of a Japanese meal. To my depraved occidental taste this is better spoken of than devoured. A bowl was placed in the center of the table into which we all dipped our fingers. One caught a slender thread to which was attached a choice morsel about an inch long. Catching it by the string one holds it high over the mouth and drops it in and swallows it like a raw oyster.

Before I swallowed mine (fortunately) I asked what it was and was informed that it was a very tiny pickled mouse (caught in the infant stage). I will not add what I did with mine. Now I have a sneaking idea this was staged for my benefit only, but all the others really ate it. At each one's place, much as we put a small dish of salted nuts, was a dish of roasted and salted peas (surprisingly good). These created thirst and, as my cup of sake was constantly being refilled, this I much appreciated. Next followed several courses of smelly fish. One looked alive. But the merriment of the whole party, including myself, reached its climax when I bravely attempted to eat creamed bamboo sprouts with chopsticks. Nothing is more slippery. I really believe that chopsticks are a heathen device. I was next given a bowl of the most nauseating sweet vegetable soup. I passed. Last of all came cute little cups of tea (the best thing of all). All the girls kept smoking with me innumerable cigarettes (mine), which they seemed to appreciate. Here vanished in smoke my last American stock. As I stood up in my stocking feet to leave, one of the girls beckoned me to her. (I thought she wanted a tip.) But she only gave me a tight little hug. A custom (perhaps) of the country.

The Japanese are progressive. Their automobiles kill, as we do in New York City, about 3 persons a day in Tokio alone. Most of the time I was in Japan I rode in a Packard. Their motors for city travel are smaller than ours and the fare is very cheap. But the *yen*, the monetary standard of the country (worth about 50 cents) slips through your fingers faster even than the dollar. Each motor bus, besides the chauffeur, has a funny little girl conductor. These girls range from 11 to 20 years of age and are most efficient. They wear little round blue hats, a dark blue knee-high skirt, dark stockings and low American shoes. Their little hands are encased in clean white cotton gloves and their smiling round faces as they bow you on and off the steps are really pretty to watch. They are very short in size but wide of girth. They give all the traffic signals for the chauffeur. I am told that they get about $10 a month! The railroads are narrow gauge (3 ft. 3 in.) and are largely electrified, as Japan possesses easily and cheaply produced electric power. The trains seldom go as fast as 40 miles an hour. Accidents are few. A fourteen-hour night train ride I took between Yokohama and Kobe furnished me the cutest little stateroom all to myself, with running hot and cold water, (the bed placed transversely) for only 7 yen ($3.50) above the price of transportation. I slept 7 hours; a feat I have never accomplished on an American train.

The hotels remind me very much of the Swiss hotels. They are very good, very clean, and very reasonable. But the little maids have a disconcerting way of suddenly bouncing into your bath-room or chamber. The food is cosmopolitan with all the delicacies one gets in London or New York. The "million dollar cocktail" to which I was early introduced is rather a seductive drink, but very heady, with its brandy and champaigne foundation, its dash of absinthe and frothing with raw egg.

The scenery and the temples of Japan, and its interesting people make it one of the pleasure spots of the earth to visit. Members of the "Franconia World Cruise", which I joined at Kobe, after seeing all the countries of the Mediterranean and of the Orient, speak of Japan as the high spot of the whole trip. I hold the mental picture of Fujiama, snow-capped with eternal snows, seen from the far side of a wonderful blue lake; my immediate foreground a mass of huge cypress or cryptomeria trees (much like our California redwood) waving their tasselled arms between my vision and the azure sky as one of the most exquisite memories of natural scenery I have ever witnessed.

REPORT OF PROSECUTIONS FOR ILLEGAL PRACTICE

(Submitted by Dr. Charles B. Kelley, Secretary of the State Board of Medical Examiners.)

On Dec. 11, 1928, George R. Dencer, a licensed chiropractor, was convicted in the First District Court in Newark on a charge of practicing medicine without a license. Dencer exceeded his chiropractic license by giving electric treatments.

Jan. 10, 1929, Andrew F. Whitford pleaded guilty in the Trenton District Court to a charge of practicing medicine without a license. Mr. Whitford was demonstrating "Konjola" in Trenton, and at the same time recommending other medicines and treating people.

Jan. 15, William C. Rohrer, a chiropractor, of Bayonne, paid the penalty for practicing medicine without a license.

Jan. 23, Rudolph B. Willrich, of Wildwood, paid the penalty for practicing chiropody without a license.

Jan. 29, Charles Rogers, a "Bon-Tone Representative" in Newark, plead guilty in the First District Court to a charge of practicing medicine without a license.

Jan. 29, Louis Glover, a druggist of Orange, was found guilty for practicing medicine without a license.

Jan. 29, William Ruth, a licensed chiropractor of Irvington, was convicted in the First District Court of Newark on a charge of practicing medicine without a license. Ruth exceeded his chiropractic license by giving electric treatments.

Jan. 29, Adolph Schulhoff, of Newark, was convicted in the First District Court of Newark, for practicing medicine without a license. Schulhoff refused to pay the penalty and was committee to jail for 5 days.

Jan. 29, Ernest M. Bick, of Newark, paid the penalty for practicing medicine without a license.

Jan. 29, Issac H. Blae was convicted in the First District Court of Newark for practicing medicine without a license. He refused to pay the penalty and was committed to jail for 5 days.

Feb. 1, Angelina Milone and Ralph Milone, "herbalists", of Camden, plead guilty in the Camden District Court to practicing medicine without a license.

Mar. 11, Norman Heiman, a chiropractor of New Brunswick, plead guilty in the District Court to a charge of practicing medicine without a license.

Mar. 15, William M. Gilbert, of Toms River, plead guilty in the Common Pleas Court of Ocean County to a charge of practicing medicine without a license.

Mar. 19, Leo Gibbons, another Konjola repre-

sentative in Trenton, plead guilty in the District Court to a charge of practicing medicine without a license.

Mar. 22, Abraham L. Fennimore, an "herbalist", of Trenton, was convicted in the District Court on a charge of practicing medicine without a license. Following this conviction, Hayes Fennimore, his son, who was practicing in East Orange and who had been arrested, paid the penalty for practicing medicine without a license.

Mar. 26, Frank S. Mansolillo, a chiropractor, of Jersey City, plead guilty in the First District Court to a charge of practicing medicine without a license. Mansolillo exceeded his chiropractic license by giving steam baths and electric treatments.

April 4, Annuniziata Tozzi, a licensed midwife, of Lyndhurst, was convicted in the Englewood District Court on a charge of practicing medicine without a license.

Apri 15, Waldemar de Miller, of Manasquan, plead guilty in the Common Please Court of Monmouth County to a charge of practicing medicine without a license.

April 30, William Shinas, of Newark, paid the penalty for practicing medicine without a license.

April 30, Leonae Russo, an Italian physician, of Newark, was convicted in the First District Court for practicing medicine without a license.

May 21, Peter Eagle, of Paterson, was convicted in the Passaic District Court on a second charge of practicing medicine without a license. Eagle was unable to pay the penalty and was committed to jail for 6 months.

On the same date, Mary Youkan, who was convicted in the Passaic District Court in 1927 for practicing midwifery without a license and who had failed to pay the penalty, was committed to jail for 100 days. The Board moved to commit Mary Youkan because of the fact that she was again practicing midwifery.

On Sept. 20, 1928, the license to practice medicine and surgery of J. Newhall Kirk was revoked by the Board.

On May 16, 1929, the license to practice midwifery of Maria Oliva Stabile was suspended for 6 months.

THE PHYSICIAN AND DIPHTHERIA

(In the New York State Medical Journal April 15, Ex-President Nathan B. Van Etten has a short address to the physicians of his state so appropriate to New Jersey's campaign for obliteration of diphtheria that we have asked permission to reproduce most of it here.—Ed.)

THE SIX HUNDRED AND FIFTIETH MAN IN DIPHTHERIA PREVENTION

Nathan B. Van Etten, M.D., New York City

In the State of New York every 650th man is dedicated by his oath to the public and private health of 11,500,000 people.

There are 17,652 of him and his average length of time in service is now about 25 years. The oldest have been at work about 65 years. His required education is greater than that demanded by the state for the licensure of any other person. Because of the nature of his education and the time required to complete it, he begins to earn his living at about his twenty-seventh year. His average earnings are less than those of many artisans. He is always on call, his current life a turmoil, his future an uncertainty.

Consecrated to an ideal, if occasionally material success comes it is merely as a product of unselfish service.

He deserves the respect, affection, protection and support of those whom he serves. Individually he may be reactionary or static. Collectively he is progressive. Individually he cannot violate inherited traditions which forbid public advertisement of his accomplishments. Collectively he must announce the progress of science and his readiness to apply advancing knowledge to the prevention and cure of disease.

The fact that only about 5% of his practice is concerned with communicable disease should induce tolerance and patience with his slowness to rise to the highest coöperation in a campaign for the prevention of diphtheria. While he has known about toxin-antitoxin for 15 years he has been feeling his way in its employment, studying the growing statistics of practical immunity and the statistics of immunity revealed by scientific tests.

He who calls himself a general practitioner and he who calls himself a pediatrician, a general practitioner for children only, are those who have most actively responded to the stimulus of this militant campaign—the dramatics of which have been absolutely necessary in order to arouse the public conscience.

He who practices a limited specialty has been slower to realize his responsibility for the lives of children. But in general no public health movement within our recollection has enlisted more universal and enthusiastic coöperation.

In the 22 upstate counties which have reported no diphtheria deaths for 1928 the general practitioner must be credited with this glorious achievement and to him and to the pediatrician we must look for the future success of immunization.

In localities where intensive immunizations have been carried on with great success, no one should feel that the work is complete, when in reality it has only caught up with arrears and the real work of preventive immunization of the yearling and of the pre-school child has just begun.

The enlisted forces, the layman, the official, the scientist, the medical practitioner, the publicist are carrying on a magnificent work. It is inevitable that a highly sustained drive must yield to a slower pace, but lay and official organizations must continue a never ending education directed toward the parents and guardians of children.

Parents should know that the fight against diphtheria is in no sense experimental, that the physician knows the cause, the diagnosis, the dependable remedy, if used early enough, and the preventive agent. The educated parent will be held directly responsible when a child dies from diphtheria if he shall have failed to ask for protection by toxin-antitoxin. Organizations for the distribution of information concerning the prevention of disease will influence an increasing popular appreciation of the fact that diphtheria is preventable, that a death from it is a family and community disgrace, and that your six hundred and fiftieth man is at all times ready and able to prevent it.

Lay Mirror Reflections

COST OF MEDICAL CARE

(New York Times, May 26, 1929)

Discussion of the cost of medical care is continuous and occasionally—as in the recent case in Chicago—flares up into heated controversy. It would be clarified if we first posed the question: "How much is it worth to be well?"

Dr. Dublin of the Metropolitan Life Insurance Company has estimated that "the total capital value of the lives which can be saved annually by the application of modern preventive medicine and public health measures is over $6,000,000,000." This is an estimate of what might be. We should be on surer ground if we calculated the value of work actually done. What is the cash value of the fact that the average expectation of life have been increased by more than 15 years in the last 2 generations? In 1910 the death rate from tuberculosis in a certain group of States was 164.7 per 100,000. By 1925 in the same states medical science had cut this rate in half—there were only 82.9 deaths from tuberculosis per 100,000. Balance the epidemics of typhoid in the Spanish War against the practical immunity from this disease in the World War. A quarter of a century ago, 1 out of every 6 babies died before its first birthday; now death takes only 1 in 14 during the first year.

For such service few will haggle over price. The real problem is, Who bears the cost? At present no trustworthy figures are available. Very roughly we may say that the rich pay a great deal more for the medical care they receive than the service costs. The great mass of the people pay more than they can afford, but less than the service costs. The very poor receive expensive treatment and pay nothing. It seems probable although precise figures to prove it are lacking, that the amount which the American people pay out of pocket as individuals for medical care is considerably less than the actual cost of the service they receive.

The difference is made up from 3 sources—drafts on the tax fund for public health service, the beneficence of individuals who endow hospitals and the generosity of the medical profession. No other profession gives the public so much unpaid service.

A committee on the cost of medical care has been organized under the chairmanship of Dr. Ray Lyman Wilbur, the Secretary of the Interior. It is not so much a question of the amount as of the distribution of cost. We, as a nation, demand the best medical care available. We are rich enough to pay for it. The problem is not how much but who pays. It is to be hoped that when the committee has finished its studies it will be able to tell us how much of the cost of medical care is borne by the patients. How much is borne by the community? How much is met by philanthropy? How much is scratched off the doctors' books as bad debts? Not till we know how this cost of medical care is apportioned can we hope to solve the problem.

Observations from the Lighthouse

ANEMIA

The Virginia Medical Monthly, March 1929, published a series of original articles on "anemia" that had been read in symposium at the last annual meeting of the Medical Society of Virginia. In combination with a special article from the New England Journal of Medicine they make a fairly complete résumé of modern views upon this subject.

Regarding the normal and pathologic physiology of anemia, Regina C. Beck (Va. Med. Monthly, 55:833, March 1929) says:

"Just what it is that keeps the rate of reproduction of erythrocytes at a definite pace with the destruction of erythrocytes—called 'hemogenic-hemolytic balance' — is not definitely known. Leake thinks that the growth of new red cells would be regulated more or less by demand, that the rate of production and entry of new red cells would be regulated by the rate of removal from the blood stream. This would imply some sort of hormonal regulation probably between the spleen and the red bone marrow. Drinker and Drinker have shown that the arterioles entering into the venous sinuses in all cases appear to be supplied by vasomotor nerves, other nerve filaments being distributed through the blood forming tissue outside the vessels. These nerves appear to be afferent in character but the possible nerve control of the cellular secretion of the blood forming tissue is almost an unexplored field. Drinker also states that the need for hemoglobin is the stimulus maintaining blood formation at its balanced level. Adult erythrocytes probably cannot increase their hemoglobin content and we must, therefore, look for more hemoglobin not in terms of augmented old cells, but in terms of new cells per unit volume of blood.

The origin of hemoglobin would appear to be in considerable doubt even yet. The materials from which it is synthesized are derived in the metabolism of food and from conserved pigment and iron remaining in the liver from the breakdown of hemoglobin of previously destroyed erythrocytes. The factors necessary for the actual synthesis remain obscure but it would appear that sunlight and certain accessory food factors are significantly involved. The actual place of formation of hemoglobin from its components seems to be in the red bone marrow and it appears in the erythrocytes during some stage of their formation. Normally, the amount for each erythrocyte is fairly constant. The color index indicates the amount of hemoglobin in each erythrocyte compared with the normal amount. The normal color index is one which is obtained by dividing the percentage of hemoglobin by the percentage of erythryocytes. When an abundant supply of building material is available, the bone marrow may build an excess of hemoglobin into the erythrocytes giving a high color index. This is seen in some hemolytic anemias where the iron containing portion of the liberated blood pigment is retained in the body for future building of hemoglobin and the non-iron containing portion is eliminated as urobilin. If the iron is lost by hemorrhage or the bone marrow is unable to utilize the materials at hand, the erythrocytes are deficient in hemo-

globin and the color index is low. The lowest color index is found in chlorosis, where the materials cannot be used, and in post-hemorrhagic anemia where the iron is lost. This, of course, is only one of many explanations for the color index.

It is important to keep in mind the distinction between erythrocytes and hemoglobin and to remember that hemoglobin is organized in the essential material for providing the cells of the body with the oxygen necessary for life. It does not bear any constant relation to the number of the erythrocytes.

Clinically, it is customary to divide anemias into 2 groups termed, 'secondary' and 'primary', and, although this classification has its shortcomings, it has long been in general use and will be adhered to now because it is convenient and easily followed.

Secondary anemias are symptomatic of some underlying pathologic condition, while primary anemias appear to develop and progress independently of any other concomitant disease. It is not always easy to make the distinction between the 2 groups, although each has a more or less distinctive and characteristic blood picture.

In secondary anemias the blood changes vary somewhat with the cause, but in general the blood picture is so similar for all cases of secondary anemia of the same severity that we may consider them as a group.

Diminution of hemoglobin is the constant and most characteristic feature of secondary anemias. In mild cases it may be slight, usually 60 to 70%; in severe cases 40 to 50%, and in extreme cases 15% or even less. The color index may be reduced as low as 0.8 to 0.7 but rarely as low as 0.5. The leukocytes do not bear any direct relation to the anemia but neutrophilic leukocytosis is common. In mild cases stained films show no appreciable change, but in moderate to severe cases there will be seen anisocytosis, poikilocytosis, some polychromatophilia and even occasional nucleated erythrocytes. The severe forms also show basophilic degeneration and small or considerable numbers of nucleated erythrocytes as noted above. Large nucleated erythrocytes have been encountered in certain severe cases of secondary anemia. They may be espcially numerous and even exceed the normal sized nucleated erythrocytes in severe anemias due to Dibothriocephalus Latus infection, which gives a blood picture identical with that of pernicious anemia, and also in the anemias symptomatic of malignant disease presumably with metastasis in the bone marrow.

Secondary anemia due to lead poisoning differs from other secondary anemias in that the blood smear contains a large number of erythrocytes showing basophilic stippling which is a striking feature of diagnostic significance.

Post-hemorrhagic anemias also show differences from the usual secondary anemias. Immediately after a large hemorrhage the erythrocyte count will be the same as before the hemorrhage, but within a few hours, when the volume of blood is in a large measure restored by means of fluid from the body tissues with consequent dilution of the blood the situation undergoes adjustment; and after one or two days the erythrocytes and hemoglobin fall to a figure proportionate to the amount of blood lost. Active regeneration of erythrocytes begins probably within 24 hours and the new erythrocytes are deficient in hemoglobin, which is reflected in the low color index.

Acute aplastic anemia is a rare and rapidly fatal anemia of obscure etiology which appears to be the result of a more or less complete failure of blood formation. The failure first involves the formation of erythrocytes, then the leukocytes, and finally the blood platelets and, when the platelets become greatly diminished, symptoms like those of purpura hemorrhagica appear.

Hemolytic jaundice is a rare, chronic, generally hereditary disease, characterized by periods of excessive hemolysis due either to strong hemolytic poisons or to excessive fragility of the erythrocytes. The most striking laboratory finding is markedly increased fragility.

Whether pernicious anemia is an entity or whether it represents a group of conditions with similar pathogenesis but different etiology would appear to be a debatable subject. It appears certain that some obscure noxious or toxic agency is resposible for the excessive destruction of erythrocytes and the active abnormal regeneration of erythrocytes by the bone marrow. The nature and origin of the hemolytic toxin however is unknown."

SYMPTOMATOLOGY

Collins D. Nofsinger (Va. Med. Monthly, 55:838) writing of symptomatology and diagnosis of anemia, says:

"The diagnosis of acute anemia due to blood loss is usually made from the history and clinical picture. Immediately following acute hemorrhage when considerable amount of blood is lost the red cell count is normal, but within a few hours, as the blood volume is being restored, the red corpuscles and hemoglobin show a reduction while polymorphonuclear leukocytes are increased. The blood pressure in acute hemorrhage is low, and a continued low systolic pressure is indicative of persisting hemorrhage.

The diagnosis of chronic anemia due to blood loss is usually obtained from the history and finding of the condition responsible for the hemorrhage. The blood examination will show varying degrees of anemia with increased bone marrow activity. Although in prolonged or repeated hemorrhage the bone marrow activity may be diminished, and the blood findings are similar to those of pernicious anemia, the typical histologic cells and the increased blood destruction of pernicious anemia do not occur in chronic hemorrhage.

Simple anemia due to defective blood formation is the most frequent type met in general practice. The causes are numerous: intoxication from poisons, such as lead, mercury and arsenic; infections of all types; intestinal parasites; toxemias from the liver and kidneys; deficient diet and lack of outdoor exercise. The blood findings are varying degrees of reduction in hemoglobin and red cells; which latter show no special morphologic changes.

The hemolytic anemias are characterized particularly by increased blood destruction, although some of these may also show defective blood formation.

General muscular weakness is one of the most prominent complaints. In the early stages there is usually a history of sore mouth, nausea, and recurrent attacks of diarrhea. Free HCl is most

often absent. The skin shows varying degrees of light jaundice, and the spleen is usually enlarged. As the disease progresses, symptoms referable to the cardiovascular and central nervous systems may become marked. Blood examinations show evidence of increased blood destruction, with megaloblastic regeneration. The diagnosis should be made from a thorough study of the blood, interpreted in the light of the history and physical examinations."

TREATMENT

Medical treatment of the anemias, as given by J. C. Flippin (Va. Med. Monthly, 55:840) may be described as follows:

"It may be stated without reserve or hesitation that the treatment of pernicious anemia with liver substance is one of the most brilliant medical achievements of our day. Reports of the results of treatment of pernicious anemia with mammalian liver and liver extracts are singularly unanimous in all essential details. There is available a series of cases sufficiently large to bring conviction to the most skeptical. The major observations have been carried forward under conditions so carefully controlled as to make this work an eloquent tribute to modern scientific methods.

The outstanding fact is that if a patient with pernicious anemia during the period of relapse is fed approximately ½ lb. of liver a day, about 230 gm., or a potent extract from 400 to 600 gm. of this liver, the blood will quickly assume or approximate the appearance of that of a normal individual and the patient will be correspondingly relieved of the more usual and distressing symptoms of the disease. This epoch-making contribution to medicine we owe to Dr. George R. Minot, of Boston, and his co-workers, who in turn were directed to the problem by the experiments of Dr. George H. Whipple and associates. Whipple had announced the observation that anemia produced in dogs by repeated bleeding was very favorably influenced by the addition of liver and kidney to the diet. Minot, impressed with these observations, gave the liver diet a thorough-going trial under carefully controlled conditions with the result with which we are now familiar. Now that clinical experience has thus far demonstrated the relatively small and uncertain value of liver diet in ordinary cases of secondary anemias, including those resulting from hemorrhage, its marvelous and specific action in pernicious anemia is seemingly a strange paradox.

Properly prepared liver extract in adequate dosage has essentially the same beneficial effect as liver substance. Perhaps the hemoglobin increase is not quite so rapid unless iron is supplied either in the food or in the inorganic form. The extract used in most cases reported is that prepared by the Eli Lilly Company under supervision of the Pernicious Anemia Commission of the Harvard Medical School. The active principle of liver affecting the course of pernicious anemia is soluble in water, insoluble in ether and precipitable by alcohol. It is thought to be either a nitrogenous base or a polypeptid. This particular preparation is now being marketed by the Lilly Company as preparation No. 343. It is a yellowish powder, soluble in water and when given in doses of about 0.6 gm. a day produces the characteristic response of reticulated cells.

The extract naturally has many advantages over liver feeding. Many people do not like liver and it is apt to pall upon the taste when eaten every day for months and years. Furthermore, it cannot be regularly supplied in rural districts. It is already apparent that precautions must be used in the preparation of the extract as relatively inactive lots have been encountered. It should also be borne in mind that a fertile field for commercial exploitation has been opened and only those extracts should be relied upon which have been carefully standardized.

In comparison with these clear-cut and most satisfactory results from liver extract in pernicious anemia, the question of the effect of liver substance on the secondary anemias is at present very much in the air. The reported cases of Minot and Murphy would indicate that its field of usefulness in anemias other than the pernicious form is quite limited. As against this we have the evidence of Whipple that liver has an appreciable effect upon the anemia of laboratory animals after hemorrhage. This experimental evidence is supported by the experience of others. Clinical reports are exceedingly variable and at present hard to interpret. The anemia caused by the fish tape-worm and which closely resembles pernicious anemia morphologically, admittedly reacts very much as does pernicious anemia. Certain anemias arising during pregnancy of obscure origin have been reported as being materially benefited. In fact, isolated cases of many varieties of anemia are said to have responded favorably to liver diet. On the whole, however, it would seem that this method of therapy cannot be thought of at the present time as being specific for the secondary anemias. We are, therefore, not justified in relying upon liver treatment in such anemias, certainly to the exclusion or neglect of other measures.

Assuming that we have done our full duty in patiently searching for and so far as practicable removing the cause in a given case, what further measures are available in treating the anemia? When we are confronted with sudden and considerable blood loss, or a very severe type of anemia from other cause (with the exception of the pernicious type), or a chronic anemia which has resisted other methods of treatment, unquestionably the most prompt and efficient measure for relief is blood transfusion.

Radiant energy probably deserves some mention in any discussion of the treatment of anemias. Radiation from the quartz mercury lamp and other sources of radiation have been shown to have definite effect upon the blood. In long exposure these rays appear to cause anemia. In lesser dosage a number of investigators have reported a stimulating effect upon blood production. Direct sunlight at least is usually available and the influence of heliotherapy in anemia certainly deserves attention and will doubtless receive further study.

What can we say of the efficiency of drugs in the treatment of anemia? The 2 drugs most commonly employed are arsenic and iron. Although widely used in various types of anemia for many years, there is reason to doubt whether arsenic has a direct effect upon blood genesis, maturation or hemoglobin formation. The view is generally accepted that arsenic has a stimulating effect upon metabolism in general and individuals suffering from secondary anemia of the type under discussion may be indirectly benefited. The well known Fowler's solution has maintained its popularity for oral adminis-

tration, while the combination of arsenic with cacodylic acid is usually favored for the hypodermic route.

Iron still maintains the position as the one most useful drug in the treatment of the secondary anemias. In recent years doubt has arisen as to the beneficial effects of iron therapy. Although admittedly no panacea, both clinical experience and much experimental evidence support the view that iron has a very definite place in the treatment of the anemias."

Surgery, in the treatment of anemia, was discussed by R. L. Payne (Va. Med. Monthly, '55:844): "I think I shall not be considered radical if I devote only a brief word to the consideration of splenectomy in pernicious anemia, for the operation in this disease does not appear to be based on sound reasoning and at the best promises only a remission of the symptoms for a brief period of time. When pernicious anemia has developed to the state where the blood is characteristic it is an incurable disease, but splenectomy in some instances may offer a decided palliation. Many of these cases in the early stage do not show the characteristic symptoms of pernicious anemia; it is in these cases splenectomy offers the best hope for cure or considerable palliation. In elderly individuals the operation should never be considered, but in the middle-aged and young, if the disease is progressing rapidly and hemolysis is a marked symptom, splenectomy should be undertaken as a last resort.

In the consideration of splenectomy for splenic anemia, we find that the results are very much better in contrast to the failures of this operation in pernicious anemia. It is true that in splenic anemia we are not dealing with a definite clinical entity until possibly the last stages of the disease and the great difficulty in choosing the operation of splenectomy lies in adapting it to the clinical entity of splenic anemia. Most of the confusion arises in differentiating between portal cirrhosis or biliary cirrhosis, both carrying with them enlarged spleens, and the chronic form of splenic enlargement with a secondary anemia which characterizes the syndrome of splenic anemia. In splenic anemia unassociated with cirrhosis in any form, splenectomy has proved very favorable, resulting in about 60% of cured cases. The results are not always immediately encouraging, for often the anemia is exaggerated over a period of 4 to 12 weeks."

As a fitting conclusion to this review, we have abstracted Wyman Richardson's report on the treatment of 67 cases of pernicious anemia with liver or its derivatives (New England Med. Jour., 200:540, Mar. 14, 1929):

"(1) Of 67 cases of pernicious anemia followed at the Massachusetts General Hospital for a period of 6 to 28 months, 6 are dead; 5 died from causes other than pernicious anemia, and 1 with probably a complicating toxemia; 4 patients have moderate to marked central nervous system symptoms, and 1 has gastric carcinoma; 56 are well.

(2) This series confirms in every way the observations first reported by Minot and Murphy concerning the strikingly beneficial effect of liver therapy for patients with pernicious anemia.

(3) Central nervous system symptoms can, and frequently do, clear up, either entirely, or to a greater or lesser extent, following months or years of treatment, provided an adequate liver intake is maintained. It is essential to keep the red cell count above 4,500,000 per cubic millimeter in order to prevent involvement of the central nervous system. No patient, in this series, developed central nervous system symptoms during treatment, with the exception of occasional early and transient paresthesias and neurotic pains.

(4) It should be possible to recognize the disease in its prodromal stage and thus prevent its more usual manifestations."

County Society Reports

ATLANTIC COUNTY

General Staff of Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The regular monthly meeting of the Atlantic City Hospital Staff was held in the Hospital, May 24, Dr. C. Coulter Charlton, President, in the chair.

The scientific program was presented by Dr. Theodore Senseman, Chief of Surgical Service, and Dr. James H. Mason, Associate.

The number of admissions totaled 186, of which 148 were operated upon. A statistical survey of the types of cases admitted to the service was presented and a brief résumé of the mortalities detailed; the greater number of deaths being due to violent trauma received in accidents, or the result of self-inflicted gun-shot and knife wounds.

Dr. Senseman, following a general survey of his service, presented some cases of more than usual interest.

(1) Buerger's disease. Adult male, 62 years of age, who had been suffering from this pathologic condition for a considerable length of time, was admitted with a large gangrenous area at the stump of the right knee; there having been several amputations performed by other surgeons in the past few years. Histologic report of a section of the tibial artery removed from the amputated limb disclosed a typical endarteritis obliterans. The heart muscle showed myocardial degeneration. Thrombo-angiitis obliterans occurs for the most part among young adult Russian and Polish Jews and is characterized by obliteration of both the arteries and veins of the legs. The actual cause of the disease is unknown but, quoting Buerger: "Whatever may be the cause of the thrombosis we feel inclined to believe that some additional agent not purely mechanic, be it toxic or otherwise, is simultaneously responsible for production of the periarteritis and subsequent thrombosis." The salient symptoms are indefinite pains in the foot and calf of the leg, and a sense of numbness or coldness whenever the weather is unfavorable. The dorsalis pedis or the posterior tibial artery have very faint pulsations or are absent. Later on trophic disturbances make their appearance. Raynaud's disease is at times confused in the differential diagnosis. The most serious complication, gangrene, occurs in the later stage of the disease and when this condition arises amputation is the proper procedure.

(2) Male infant, 3 months old, presented a *Spina bifida* about the size of a large grapefruit. This tumor showed evidence of inflammation of

the skin covering, and it was felt that paralysis of the lower extremity was an accompanying factor, which was demonstrated at time of operation. Dr. Senseman stated that operative closure of the sac is the only form of treatment save with smaller protrusions seen early and capable of being snared off.

The ideals of the operation are to excise the sac, reduce its contents or remove them if irreducible, shut off any connections of the subdural space with the exterior, and to repair as far as possible the musculo-osseous defect. The child is placed face downward with the head lower than the trunk, and all reasonable precautions to guard against shock and excess bleeding.

(3) A case of intestinal obstruction in a mentally defective child was presented; the obstruction being due to a rubber nipple wedged in the ileum.

Dr. James H. Mason reported the case of a boy, 14 years of age, injured by a projecting object while performing exercises in the gymnasium. Laceration of perineum resulted. One hour following admission, showed sympoms of an acute abdominal condition. Laparotomy disclosed that the object which caused the injury had perforated the perineum, gone through the rectum, and injured the sigmoid and wall of the ileum. Patient died 3 days after admission with marked symptoms of peritonitis.

Another case was that of a child, 4 years of age, with symptoms of acute pain in abdomen. Upon examination, signs of general peritonitis were present and the diagnosis was made of a ruptured appendix. The leukocyte count was 24,500 with 90% polys. An important feature was the history of attacks of pain, with vomiting, when patient was 2 yr. old. Upon opening the abdomen, 4 cysts were found attached to the ileum. A resection of 8 in. of the ileum and an appendectomy was performed and drainage instituted.

Discussion

Dr. Marcus. Commenting upon the Mongolian idiot who had swallowed a nipple, causing obstruction, he mentioned that children with deficient mentality are prone to swallow things and this should always be kept in mind when studying symptoms of intestinal obstruction. Concerning Spina bifida the two most common complications following operation are, as Dr. Senseman pointed out, hydrocephalus and meningitis. It is questionable whether these severe types of cases showing paralysis should be operated upon as that only hastens the end, but as no alternative is offered surgical procedure must be instituted.

Dr. Homer I. Silvers, who had recently completed a trip abroad, during which time he visited various clinics in Europe, gave some of his impressions.

Dr. Charlton presented the salient features of an aneurysm in an adult man, 44 years of age, from the medical service of Dr. Barbash. This aneurysm was secondary to a luetic infection and presented symptoms of paralysis of the left vocal cord. This was demonstrated by having the patient rotate his head to the left, during which time he could speak very distinctly but, upon rotating head to the right, his voice became much fainter and upon complete rotation he could hardly speak above a whisper.

Dr. Wescott, who made the roentgenographs, demonstrated that this aneurysm involved the arch of the aorta, being very large and extending to the descending aorta.

CAMDEN COUNTY

R. E. Schall, M.D., Reporter

The regular monthly meeting of the Camden County Medical Society was dispensed with and a joint meeting of the Camden County Society, the Camden City Society, and the Physicians' Motor Club was held at Tavistook Country Club, June 6.

A number of the doctors enjoyed golf during the afternoon, and a few of the most brilliant golfers won prizes. Other physicians enjoyed card games, and at 5:30 p. m. all assembled in the club dining room where we did justice to a mighty good roast chicken dinner. The day was well spent and all enjoyed a good time.

Three or four of our most talented members strayed from the fold, for laurels to be won at Bridgeton.

MONMOUTH COUNTY

Daniel Traverso, M.D., Reporter

The May meeting of the Monmouth County Medical Society was held at the Garfield-Grant Hotel, Long Branch, May 29, Dr. J. F. Ackerman presiding.

Papers of the evening were read by Drs. C. V. Prout, on "Treatment of Syphilitic Heart", and by C. B. Blaisdell, on "Gonorrhea".

A general discussion followed each paper. Buffet lunch was served.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

A quarterly meeting of the Morris County Medical Society was held on Tuesday evening, June 18, in the auditorium of the Church of the Redeemer Parish House in Morristown. President Mial presided over a gathering of about 35 members and guests. Among those honoring the society with their presence were the newly elected President of the State Society, Andrew F. McBride, and Recording Secretary Morrison; also noted among the guests was Dr. C. J. Kaufman, of New York, specialist in chest conditions.

Routine business was transacted, including the proceedings of the Executive Committee reported by Secretary Lathrope and in the absence of Treasurer Emory, the Secretary in his behalf reported a healthful financial condition; only 2 members whose dues remain unpaid for the current year.

In behalf of the Nominating Committee, Dr. Krauss reported recommendations of officers for the ensuing year, to be voted on at the annual meeting in September: President, Lawrence M. Collins, Greystone Park; Vice-President, Ellery N. Peck, Boonton; Treasurer, George B. Emory, Morristown; Reporter, Marcus A. Curry, Greystone Park; Historian, H. W. Klee, Wharton; additional members of the Executive Committee, L. L. Mial, Samuel C. Haven and William A. McMurtrie; Delegates to the annual meeting, William F. Costello, George B. Emory and L. E. Williams; Alternate Delegates, Charles D. Gordon, Thomas S. Thomas and Frederick E.

Knowles. These recommendations do not abridge the right of any member to make nominations from the floor at the annual meeting.

Dr. Costello, of the Publicity Committee, reported being busy with the Antidiphtheria Campaign. For the Library Committee, Dr. Larson again called attention to the fact that the county sociey is accumulating a library of periodicals at the Morristown Library.

Dr. Costello, as one of the Delegates to the recent annual meeting of the state society, gave an interesting summary of the events and his impressions; that it was very successful both from the standpoint of attendance and of the scientific program; that there were 13 members of our society registered and, according to our numerical strength, this represents about 18% and he thought the total registration of the state represented about 20%; also speaking of the effect of the changes in the Constitution and By-Laws; also the increase of annual dues from $10 to $15 to the State Society and that everybody should appreciate the objects of the increase, the increased work being done and the necessary increase of expense in its doing; and stating that an outstanding pleasant and happy affair was the dinner to Dr. McBride in recognition of his work as Commissioner of Labor.

Secretary Lathrope spoke on various topics of interest to the society, including the revision of the Constitution and By-Laws to bring them in harmony with the changes in the state society; that the changes mean that this society probably will have 5 delegates, to be chosen for 1, 2 and 3 years; that the increase in annual dues may strike a good many as a little bit of a hardship, but those familiar with the work of the state society, the Welfare Committee, and the work of thwarting inimical legislation, and anyone familiar with the work of Dr. Reik, Dr. Morrisson and Mrs. Taneyhill, will realize that the increase is justified and the money well invested; that anyone not familiar with these things may become familiar by reading the Journal; that we now have one of the most active state societies in the whole country; that we have a Journal that is regarded as one of the two or three leading State Journals in the entire country; that anyone can hark back 10 or more years and see the change in the Journal during that time under the editorship of Dr. Reik; and that taking the benefits that come to the County Society, from the State Society and from the A. M. A., all of which are included in the dues, $15 or even $20 annually is a comparatively small amount to pay for the benefits and advantages. Secretary Lathrope also pointed out certain discrepancies in the Constitution and By-Laws as compared with the ideal and that they are due to the old charter granted to the state society by King George III, back in 1766.

President Mial with great pleasure introduced the new President of the State Society, Dr. McBride.

President McBride gave one of the inspiring addresses for which he is so widely famed: stating his real pleasure as President of the State Society to make his first visit to the Morris County Society; congratulating the members on the substantial way in which they back their society and for their contribution to medical progress; that he was interested in the reports of Secretary Lathrope and Dr. Costello, which so graphically told what happened at the Annual Meeting of the State Society; that there was the best attendance in the history of the state society and a great many believed the registration was in excess of 500 members and 1070 people all told; also speaking on the subject of publicity and what has been done, particularly in the last half dozen years, to acquaint the people with the ideals and aims of the medical society; also the work of the Woman's Auxiliary and that with the work of the officers and welfare committees the understanding between the general public and the society will become more deeply seated, and that this will become so just as we concern ourselves with the affairs of our profession and of our society. Dr. McBride covered many topics and his discourse was studded with ideas of worth.

Secretary Morrison was introduced by President Mial, as a man who needed no introduction, and he gave one of his typical talks of fundamental value, touching on the recent and future annual meetings of the state society and covering a variety of subjects of interest with inspiration to his listeners.

The scientific side of the program was then taken up; the first being case records by Dr. Lawrence M. Collins, Senior Resident Physician and Surgeon at the Greystone Park State Hospital, his subject being "Foreign Body in the Lung", and "An Unusual Right Lower Quadrant Lesion".

Dr. Collins said: Foreign bodies in the lung are of fairly frequent occurrence, especially in young children who are constantly picking up objects and swallowing them. They obtain entrance to the lung substance generally through the bronchial tree, and with the aid of a bronchoscope in the hands of an expert are generally easily removed. Wounds of the lung substance from without are generally received through the traumatic injury such as penetrating wounds or falls from heights. Wounds of the lung through operative interference occur but are not frequent. The case I am about to present is of interest because of the manner in which a drainage tube was inserted directly into the lung substance following an Alexander operation for empyema.

(1) I. R. M. was admitted to the Clinic at Greystone Park on February 17 with a history of having had influenza complicated with a left sided lobar pneumonia about 4 weeks previously. Examination of his chest revealed dullness on percussion, absent breath sounds, bulging of the intercostal spaces and a slight edema of the skin over the chest wall. There was an intermittent fever, sweats, high leukocytosis, pallor, dyspnea and chills. Aspiration of the pleural cavity revealed a seropurulent fluid. A culture of this material showed a few streptococci, a few diplococci of pneumonia, and many pus cells. On February 21, 1200 c.c. fluid was aspirated and the pleural cavity was irrigated with Dakin's solution. On February 23, 1000 c.c. was aspirated and the pleural cavity again irrigated. On March 7, an Alexander operation, consisting of an incision in the skin over the posterior axillary region on the left side, was made. The wound was widened with a hemostat and with an urethral endoscope used to introduce tubes, the drainage tube was inserted into the pleural cavity. The patient was first seen by me on the following day with the history that the tube was missing, and a subsequent x-ray picture revealed it in the chest cavity.

As the patient was in a very weakened, emaciated and malnourished condition, a local anesthetic was employed and incision was made over the point of entrance of the tube with the hope that it might not be far from the skin surface. Examination failed to reveal it and it was necessary to do a rib resection. On opening the parietal pleura there was a free gush of a seropurulent material. Examination revealed that extensive adhesions had taken place and that the pus was well walled off. Examination failed to reveal presence of the tube. On examination of the lung substance which was in close proximity to the point of entrance of the tube, a small necrotic area about the size of a quarter was noticed. Forceps gently placed into the necrotic area slowly passed into a large abscess cavity and at the bottom was found the drainage tube. This cavity was aspirated and a considerable quantity of pus evacuated. As the patient was in a very critical condition, a drainage tube was inserted, the wound sutured in the usual way and dressings applied. For the following 3 days the patient remained in a very weakened state but gradually his condition has improved and examination of the chest later revealed evidence of a pneumothorax. At the present time examination of his chest reveals no evidence of air. His breathing has improved, breath sounds are normal and he is allowed up and about each day. He has gradually recovered weight and apparently has suffered no ill effects from his experience.

An Unusual Right-lower Quadrant Lesion

(2) The attention which has been given conditions associated with chronic abdominal pain has started lines of thought in many directions. During the last few years there has developed a more thorough knowledge and understanding of those minor intestinal upsets and their earlier appreciation as warnings of a more grave lesion than was formerly suspected. No matter how many cases of appendicitis one sees, the condition never seems to lose interest. So varied are its symptoms and so numerous its disguises, it never ceases to captivate one's attention. A case which was recently seen at the Clinic at Greystone Park had several unusual features which seem worthy of report.

The patient was a female in her twenties, whose family history was essentially negative with regard to any acute or chronic disorders in either the direct or collateral members of the family. Two years ago she began to complain of anorexia, malaise, lassitude, with various vague pains in the lower right abdomen. A general physical examination made at that time was negative. A complete radiographic and fluoroscopic examination was negative. On examination of lower abdomen there was definite tenderness with nauseating pain on deep palpation. Both vaginal and rectal examinations were negative. She was placed on a light diet and the pain gradually subsided. Her temperature for several weeks varied from 100° to 101° in the evening to 97.6° in the morning. At no time was there any history of cough, loss of weight or night sweats. At this time she was seen in consultation with Dr. Lathrope, of Morristown, who made a very thorough examination of chest and abdomen, including x-ray, gastric analysis, etc., and all was negative to any definite organic finding. After several weeks of convalescence there was a gradual improvement noted. An examination of blood several weeks after being up and around revealed an erythrocyte count of 3,500,000 with 10,000 leukocytes. During the following months she was subject to indefinite pain in the right hypochondriac region, not steady but fleeting in character. This would be accompanied by a rise in temperature, lassitude, loss of appetite. On February 10, while attending a dinner dance in New York, she was suddenly taken with a severe pain in the lower right abdomen. This was accompanied by nausea, some vomiting, and tenderness over McBurney's point. She was placed in bed and returned home several hours later.

She was first seen by me on February 12, and at that time her symptoms had subsided. There was no rigidity, some nausea with slight tenderness on palpation over the appendiceal area. Her menstrual history was negative. Having known this patient's past history and her present poor general physical condition, I was at first satisfied to await developments as there did not appear at this time any urgency of symptoms. On the following day, as she was still tender, operation was advised. A blood count taken at this time revealed 3,000,000 erythrocytes with 10,000 leukocytes; hemoglobin 60%. She was transferred to the Clinic Building and prepared for operation in the usual way. As we were still very skeptical regarding her lungs, although no definite lesions had been found, we believed that spinal anesthesia was the procedure of choice. On February 13, the morning of operation, she was given ¼ gr. morphin sulphate ½ hour previous to being brought to the operating room. An enema was also administered and the nurse reported that after the enema the patient was in a very weakened condition. When taken to the operating room she presented a stuporous reaction, was bewildered and confused. Her face was covered with a clammy sweat and her pulse was weak and thready. A very small amount of spinocain, about ¾ of an ampoule, was administered. Every precaution was taken to guard against shock, the site of puncture was anesthetized, and the puncture was made without any difficulty. The flow was of normal pressure and the mixture with spinocain was thorough. The anesthesia was complete in a few moments after injection and a right rectus incision was made. The appendix was found without any difficulty, was easily delivered, and presented an acute inflamed appearance. The meso-appendix was extremely thick and examination revealed great quantities of mesenteric fat. As the patient's condition did not warrant further exploration, the wound was closed in the usual way. When returned to her room her pulse was stronger and her general physical condition had improved. The anesthesia rapidly passed off and in less than an hour she was able to move her legs voluntarily. The husband had previously advised the anesthetist of his wife's idiosyncrasy to morphin but not knowing of this peculiarity I left an order that if the patient became at all restless to administer morphin, ¼ gr. At about 12:30 p. m. she began to react, was restless, complained of slight nausea and pain in the operative area. The morphin was administered by the nurse as directed and about 1 hr. after its administration I was called by the husband, who was a physician, and who stated his wife looked cold and clammy. An immediate examination showed respirations shallow, pulse hardly perceptible, and pupils pin-point in size and sluggish in reaction. Immediate measures to com-

bat the shock were instituted, including elevation of foot of bed, administration of stimulants, application of hot water bottles, etc. The patient remained in this condition for several hours. Hemorrhage was suspected but owing to the pin-point pupils and absence of restlessness, craving for water and the thoroughness that was taken in tying off the meso-appendix, we were fairly sure that hemorrhage was not the cause of her present condition. An intravenous of saline was administered from which she reacted well but during the entire night she presented a stuporous reaction, was confused and the following morning was transfused with about 250 c.c. blood.

During the following 3 days she reacted well; general physical condition improved and we believed that she was well on the road to recovery. However, on the fourth day following operation she complained of severe pain, lancinating in character, which had no relation to breathing and which was located in the lower right chest. An examination at this point revealed what we thought at the time was a friction rub. Temperature was 101°, pulse 124, respirations 22. Appetite again became irregular; complained of nausea whenever food was offered, and at times vomited small quantities of a sour smelling fluid. The treatment was entirely symptomatic and and another blood count revealed a marked anemia, 2,640,000 erythrocytes; 14,850 leukocytes; 81% polys; 16 small lymphocytes; and 2 large lymphocytes. Urinalysis was negative. On the seventh day following operation she was examined by Dr. Kaufman, of the Trudeau Sanitarium, who stated that there was nothing in his chest examination. A short time after this examination a definite swelling was detected above the liver at the lower costal margin. For sometime a subdiaphragmatic abscess had been suspected. Under local anesthesia this swelling was aspirated with a Luer syringe and a small quantity of a hemorrhagic fluid was obtained. Subsequent laboratory report revealed it to be a pure culture of a Streptococcus mucosus capsulatus. On consultation surgical intervention was not advised because of the nature of the infecting organism. She was again treated symptomatically but her temperature remained septic in type, anemia became more pronounced, and as our patient was gradually losing ground, operative intervention was advised. Under gas-oxygen anesthesia, an incision was made over the most prominent part of the mass and on dissection the tissues gave evidence of an old chronic inflammatory reaction. The peritoneal cavity was opened and a walled-off abscess containing a hemorrhagic fluid of the same character as that which was removed on aspiration was opened. Drainage was inserted and 4 days after operation the temperature had returned to normal. Her general physical condition improved and our patient went on to a normal convalescence. She has gained several pounds in weight, appetite has improved, and she has no subjective complaints.

Next in order was a case report by Dr. George J. Young, pathologist at Morristown Memorial Hospital, the subject being "Nonparasitic Cyst of the Liver", illustrated by lantern slides. The case report follows:

Nonparasitic cysts of the liver are relatively uncommon, and those occurring as solitary cysts, unassociated with cystic disease in other organs of the body, are rare findings.

H. C., a white female, aged 28, a director of physical education by occupation, was admitted to the Morristown Memorial Hospital on September 28, 1928, complaining of a mass in the upper right abdomen. Her family and past history had no bearing on present condition. She had been enjoying her usual good health until 5 weeks previous to admission, when she was struck forcibly over the lower right ribs and upper abdomen by another girl falling from a height of about 3 feet. She was not rendered unconscious, but, using her own expression, her "wind was knocked out". After a short rest she resumed her occupation, but that evening there was pain at the site of injury, which was later relieved by vomiting. For 2 days thereafter she noticed nothing out of the ordinary, but then she became aware of a slight fullness in the upper right abdomen, not painful, but it gradually increased in size, and for 2 weeks previous to admission she had experienced a feeling of fullness following meals, which sensation became progressively more severe. There was no further nausea or vomiting.

Examination revealed nothing of note apart from the local condition. In the upper right quadrant of the abdomen there was a large mass about the size of a foot-ball, firm, non-fluctuant, regular in outline, elastic in consistency, and moving with respiration. The mass extended well over to the left side and downward about 4 in. below the costal margin. There was no tenderness on pressure, and percussion was dull. There was no fever, and pulse was normal. A blood Wassermann, and examinations of urine and blood were negative. A gastro-intestinal x-ray series showed the presence of a subdiaphragmatic tumor situated in the upper right quadrant of the abdomen, not displacing the stomach or duodenum in the upright position, but markedly deflecting them to the left and downward in prone position. Radiographs of the chest and of the upper abdomen without an opaque meal did not show clearly any outline of a tumor mass, but the shadow of the upper right quadrant was more dense than normal, and the line of the diaphragm on the right side was higher than normal.

On October 4 an exploratory laparotomy was performed, and there was found, involving the under surface of the right lobe of the liver, a large, cystic mass containing 5000 c.c. clear, straw-colored fluid, examination of which gave essentially negative findings. An attempt was made to completely remove this mass but due to no definite line of cleavage, and the great vascularity of the region, only parts of the outermost wall were removed and the cavity packed with gauze. Sections of pieces of this cyst wall showed whole and broken up cords of liver cells, surrounded on one side by a thick band of fibrous tissue into which new blood-vessels had formed, and on the other side by a thinner membrane of fibrous tissue.

Convalescence was uneventful and she was discharged in good condition on October 17, 19 days after admission. At the time of this report, nine months after operation, this patient is in excellent physical condition, and there has been no tendency to recurrence of the liver cyst.

The literature on solitary nonparasitic cysts of the liver is scanty, but that associated with cystic disease is more abundant. In a report from the Pathologic Department of the College of Physicians and Surgeons, Moschowitz

reviewed the literature of 85 reported cases of nonparasitic cysts of the liver. Most of these were multiple, and situated just beneath the capsule of the liver, and varied considerably in size. The contents of these cysts were frequently clear and watery, and in no instance was bile or biliary pigment found. They appeared at all ages, 2 occurring in fetuses, 7 in the new-born, 4 in the first year of life and the remainder up to the age of 87, the majority occurring in the sixth decade. But in this summary of cases there was a constant association with cystic degeneration of the kidneys, and a less frequent association with congenital anamolies in various parts of the body, so this series throws very little enlightment upon solitary hepatic cysts unassociated with cystic disease in general. Lowenburg reported a congenital unilocular cyst of the liver in a white male child, 19 months old, operated upon by Dr. John B. Deaver, who found a cyst filling the entire right side of the liver, and filled with a dark, bloody fluid. The wall of this cyst was 1 in. thick, the fluid contained no bile, and a pathologic diagnosis of hemangioma of the liver was made. This child died 20 days after operation. Allman reported a case of liver cyst the size of a grapefruit, containing 600 c.c. of clear fluid. This mass protruded from the lower border of the liver, lying in the gall-bladder fissure. The liver substance of the right lobe was continuous with the anterior cyst wall. Margarucci summarized 50 cases with operative treatment and another series of 6 discovered at necropsy, and he described 2 personally observed cases in women of ages 58 and 67, one having 8 liters of fluid in the cyst, and the other being inoperable because of the great number of small cysts all occurring in the right lobe. Two other cases are reported by Maes, in both of which cases the pathology simulated the case here presented. Alexander, Harrington, and McGlannan have also reported cases similar to the one here related.

The origin of solitary nonparasitic cysts of the liver is obscure. Trauma is one theory, and a few of the reported cases mention a history of trauma, usually months before the onset of any symptoms. Retention cysts of congenital origin, from congenital obstruction or from an inflammatory hyperplasia of abberrant bile ducts, is likewise given in the pathogenesis of this condition.

Most all the cases of this type of cyst are found in women, Allman going so far as to say that they occur only in women. Their diagnosis is only by inference, as they present no peculiar symptom, but are usually found on exploratory laparotomy. Various preoperative diagnoses are made, i.e., cholecystitis, cholelithiasis, tubercular ascitis, etc.

Cysts of this type most commonly involve the under surface of the right lobe of the liver, and may be either intrahepatic or extrahepatic, and when multiple, vary in size from that of small shot to a cavity containing several liters of fluid. They are usually surrounded by a firm fibrous capsule which may be vascular or calcareous. The inner surface is smooth and often ridged, but the walls commonly contain bile ducts either dilated or atrophic. The contents of these cysts are either colorless or straw-colored, and it is very unusual to find bile or bile pigment, although hematoidin and cholesterin have been found. Microscopically, the capsule appears laminated, fibrous, and may contain bile ducts dilated or not.

Simple drainage usually effects a permanent cure. In most of the cases it was impossible to remove the cyst wall from the substance of the liver, there being no line of separation, and in those instances where attempts were made to remove the wall in its entirety, hemorrhage resulted.

Dr. Young followed his formal presentation with a series of slide pictures covering many different subjects of pathologic importance and pointing out conditions and findings of interest.

OCEAN COUNTY

George W. Lawrence, M.D., Reporter

The Ocean County Medical Society met at Beachwood, June 5, at 7 p. m. Members present: Drs. Thompson, Woodhouse, Buerman, Dennison, Burach, Hebener, Brouwer, Hilliard, V. M. Disbrow, Goldstein, Towbin, Jones and Lawrence.

After a very nice dinner, the business meeting was called at 7:45, with Dr. Thompson, President, in the chair. Minutes of the previous meeting were read and approved.

The membership applications of Drs. Sickle, Halbach, Sawyer, Swan and Stilwell were referred to the Credentials Committee, which committee later reported favorably for the election of all except Dr. Stilwell, and as he had been rejected at the last previous meeting, they advised a 6 months' delay before again taking up this application. By ballot Drs. Sawyer, Swan and Halbach were elected to membership and were to be so advised by the Secretary.

Dr. Eugene Herbener, of Lakewood, was elected Annual Delegate to the State Medical Society, with the understanding that if he could not attend he was to point his own Alternate.

A short paper was offered by Dr. Abraham Goldstein on "The Advantage of X-ray Examination of Minor Injuries". Dr. Goldstein demonstrated by case histories the importance of radiography after all accidents, especially where there has been a possibility of fracture or dislocation.

UNION COUNTY

Summit Medical Society

W. J. Lamson, M.D., Reporter

The annual meeting of the Summit Medical Society was held at Wallace Pines on May 28, at 8:30 p. m., with the President, Dr. Krauss, in the chair, and Dr. Pillard entertaining. Present: Drs. Baker, Bensley, Bowles, Burritt, Campbell, Clark, Dengler, Disbrow, Eason, Hallock, Krauss, Lamson, Larrabee, Lawrence, MacPherson, Milligan, Moister, Morris, Pollard, Reiter, Smalley, Tidaback and Wolfe; and the following guests: Drs. Thomas and Sly, of Summit, and Dr. Smith, of Short Hills. Minutes read and approved. Application for membership was received from Dr. M. C. Messina, of Summit.

The following officers were elected for the year 1929-1930: President, Josiah Meigh; Vice-President, M. Smalley; Secretary, W. J. Lamson.

The paper of the evening was read by Dr. George H. Lathrope, of Morristown, on "Diagnosis of Peptic Ulcer". (Published in June Journal.)

The paper was thoroughly discussed by Drs. Lawrence, Baker, Bowles, Tidaback, Pollard, Clark and Krauss.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Andrew F. McBride.....Paterson
First Vice-President, George N. J. Sommer.....Trenton
Second Vice-President, John F. Hagerty.....Newark
Third Vice-President, Paul M. Mecray.....Camden
Corresponding Sec., William J. Carrington.....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Norton L. Wilson, *Chairman*.....Elizabeth
James Hunter, Jr., *Secretary*.....Westville
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
Lucius F. Donohoe.....Bayonne
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires, 1932	George H. Lathrope, Newark
Second District	" " 1931	B. S. Pollak, Secaucus
Third District	" " 1930	Martin W. Reddan, Trenton
Fourth District	" " 1929	Paul M. Mecray, Camden
Fifth District	" " 1933	J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

W. E. Darnall, Chairman	Term expires	1929
R. K. Hollinshed	" "	1930
Lancelot Ely	" "	1931

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City	Term expires	1929
J. Finley Bell, Englewood	" "	1929
Thomas B. Lee, Camden	" "	1930
Henry Spence, Jersey City	" "	1930
H. Garrett Miller, Millville	" "	1931
Harvey S. Brown, Freehold	" "	1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty	Term expires	1929
B. S. Pollak	" "	1929
W. Blair Stewart	" "	1930

Alternate Delegates

George H. Sexsmith	Term expires	1929
Philip Marvel	" "	1930
S. B. English	" "	1930

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark	Term expires	1930
Edward J. Ill, Newark	" "	1929
J. Bennett Morrison, Newark		Ex-officio
Ephraim R. Mulford, Burlington		Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*	Term expires	1933
Paul M. Mecray	" "	1934
John Nevin	" "	1929
B. S. Pollak	" "	1930
H. Garrett Miller	" "	1931
Thomas W. Harvey	" "	1932
Elias J. Marsh, *Treasurer*		Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton	Term expires	1931
William G. Schauffler, Princeton	" "	1929
William D. Olmstead, Atlantic City	" "	1930
Ephraim R. Mulford, Burlington		Ex-officio
J. Bennett Morrison, Newark		Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Fo..man.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
Ralph K. Hollinshed.....Westville
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
James S. Green.....Elizabeth
Edward Guion.....Northfield
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
George H. Lathrope.....Morristown
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
B. C. McMahon.....Morristown
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark
George T. Tracy.....Beverly
Clarence W. Way.....Sea Isle City

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.

MOUNTAIN VALLEY WATER *from* HOT SPRINGS *Arkansas*

The Doctor's Preference for a Non-Irritating Diuretic

Mildly Alkaline -:- Natural -:- Pleasant Tasting

Mountain Valley can be consumed in quantity and relished. It is easily assimilated and a palatable agent for flushing all four of the emunctories.

Newark, N. J.
92 Central Ave.
MARket 8890

Mountain Valley Water Company
Distributing Branches in all Principal Cities

New York, N. Y.
142 E. 25th St.
GRAmercy 1666

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103. Act of Oct. 3, 1917, authorized July 29, 1918

THE N.Y. ACADEMY OF MEDICINE
AUG -8 1929
LIBRARY

Vol. XXVI., No. 8. Orange, N. J., August, 1929 Subscription, $3.00 Per Year Single Copies, 30 Cents

CONTENTS

ORIGINAL ARTICLES— Page

Presidential Address—Dr. Ephraim R. Mulford 557

A Blood Grouping Chart—Dr. Robert A. Kilduffe 563

Orthopedic Highlights of Interest to the General Practitioner—Dr. B. Franklin Buzby 563

Treatment of Pneumonia—Dr. Berthold T. D. Schwartz 567

Some Eye Conditions of General Interest—Dr. W. Blake Gibb 570

ORIGINAL ARTICLES— Page

Management of Gastric and Duodenal Ulcers, with Special Reference to Acute Perforated Ulcers Operated Upon Under Local and Pitkin's Spinal Anesthesia—Dr. William Reid Morrison 572

Surgical Dentistry—A. F. Gorham, D.D.S. 576

The Present Status of Tuberculosis Vaccination in Infancy—Dr. Joseph H. Marcus 578

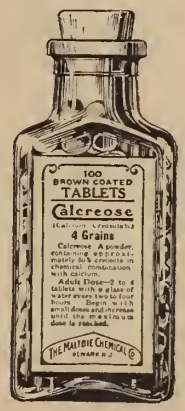
In Memoriam 580

Continued on page VI.

All Through The Summer Months

Calcreose is the "stand-by" of many physicians when they require an intestinal antiseptic embodying the effectiveness of creosote.

Every physician reader of this Journal who is not familiar with the value of Calcreose in the treatment of enteritis and other intestinal disturbances during the summer months is invited to clip out and return the bottle opposite for liberal, complimentary test.



The MALTBIE Chemical Company, Newark, N. J.

MALTBIE Calcreose

Sound weight and muscle on MEAD'S DEXTRI-MALTOSE

MEAD'S Dextri-Maltose, cow's milk and water can, with but few exceptions, be relied upon for good results in artificial feeding cases.

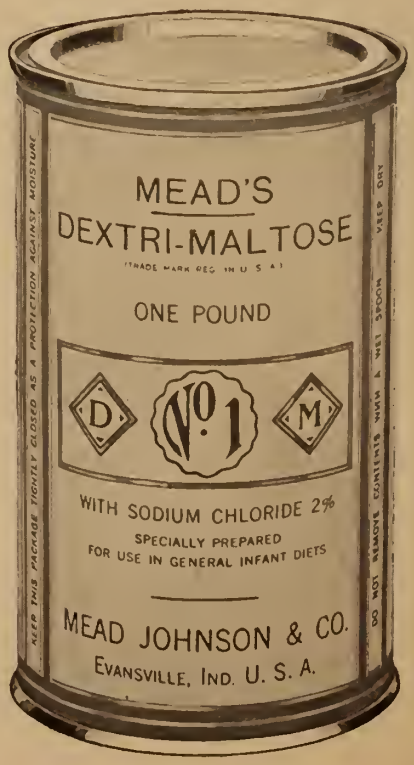
The addition of Dextri-Maltose makes up the carbohydrate deficiency in the cow's milk. It is easily assimilated—well tolerated.

Gains in weight are usually normal, presenting a healthy clinical picture—sound musculature—good color.

There is a minimum of nutritional disturbances of a fermentative nature due to the greater assimilation limits of Dextri-Maltose over either lactose or sucrose.

Dextri-Maltose No. 1 is indicated for normal infants, while the No. 3 with 3% addition of potassium bicarbonate, is the clinical choice if calcium constipation is present.

These observations are made from the results obtained in hospitals, in clinics and from many physicians in private practice.



THE MEAD POLICY

Mead's infant diet materials are advertised only to physicians. No feeding directions accompany trade packages. Information in regard to feeding is supplied to the mother by written instructions from her doctor, who changes the feedings from time to time to meet the nutritional requirements of the growing infant. Literature furnished only to physicians.

MEAD JOHNSON & CO.

Makers of Infant Diet Materials

EVANSVILLE, INDIANA, U. S. A.

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 8 ORANGE, N. J., AUGUST, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

PRESIDENTIAL ADDRESS

Ephraim R. Mulford, M.D.,

Burlington, N. J.

(Delivered at the 163rd Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 14, 1929)

Conforming to the custom established by my distinguished predecessors, I am now privileged to present a résumé of the activities of our organization for the past year. For many years the Annual Presidential Address was strictly scientific but the rapid march of medical progress now makes it imperative that we confine ourselves to organization events occurring during our tenure of office. No one has more keenly appreciated the high honor of having served this distinguished body of physicians as Presiding Officer than my humble self, and I shall always cherish the friendships and pleasing associations that you have permitted me to enjoy.

First, we will consider the unfinished part of the program continued from 1928. I have found an awakened interest in Periodic Health Examinations—the far reaching influence of this procedure for continued health, prosperity and increased longevity is being recognized by our members, and eventually the family physician, who knows best the physical defects, mental idiosyncrasies, and economic status of his patient, and who is the logical one to make this annual health audit, will arrange time for this important work.

The antidiphtheria campaign has progressed very satisfactorily. This work has been turned over to a special state-wide campaign committee, which in turn appointed county chairmen who selected their own local committees. Lay organizations have worked harmoniously under the direction of the county physicians in this humane endeavor. Probably no project undertaken by the profession is of more importance to society than this concentrated effort, in the line of preventive medicine, to stamp out diphtheria. Already 250,000 children have received toxin-antitoxin this year in New Jersey, 95% of whom may now be considered safe from diphtheria. We will not have kept faith with our medical forbears and the profession at large unless we continue to coöperate in this work until diphtheria is as scarce as yellow fever and smallpox.

The Welfare Committee has, I think, been especially efficient this past year. Dr. Andrew F. McBride, the Chairman, before sailing for Europe in January to get a much deserved rest, made such careful plans that the work of this body continued to move smoothly and with precision. Attendance at the meetings of this committee, despite the wide spread epidemic of influenza this winter, was most inspiring, and efforts to guard and protect your interests against the onslaughts of the cults were so effective that the Bills sponsored by them were all kept in committee. Dr. Reik, in his Presessional Report, has thoroughly covered this work.

The presence of such a large number of our members at the Public Hearing on Senate Bill No. 44, I think impressed that honorable body with our desire to protect the

public from unqualified physicians and to jealously guard the public health. We express our hearty appreciation of the large attendance at this hearing and the increasing interest manifested in medical legislation. Let me urge your continued coöperation in this great project, for eternal vigilence must be our watchword if we successfully combat the attacks of our adversaries.

Perhaps the most helpful agency in our organization work this year has been the Tri-state Conference. These round-table discussions and timely essays on vital problems confronting the 3 state societies of Pennsylvania, New York and New Jersey have been to me most instructive. On November 10, 1928, our society entertained the conference at Hotel Chelsea, Atlantic City. Two papers were presented at that session: (1) "A Brief Review of a County Medical Society's Opportunities", by Dr. Joseph S. Lawrence, of New York; (2) "The State Medical Journals; Their Peculiar Field", by Dr. Frank Overton, Editor of New York State Medical Journal. Dr. Lawrence's paper evoked such a long and interesting discussion that the conference decided to devote another meeting to the same subject and to have later a separate session devoted to further consideration of the "state journal". The importance of the county society as the basic unit of our organization was most forcibly brought to our attention; also that very intimate relationship and contact between the state and county societies must be maintained if both are to prosper. A house cannot be any stronger than its foundation.

The New York State Society entertained the second session of the conference at the Transportation Club, Hotel Biltmore, New York City, and here no detail for one's personal comfort was omitted. Dr. Henry O. Reik, our Editor and Executive Secretary, presented a splendid paper entitled "Further Consideration of County Medical Society Opportunities". Dr. Reik stressed Scientific Advancement; Internal Relations; Social Advantages; Public Education in Medical Matters; Education in Relation to Legislation; Coöperation with Lay Organizations for Protection of Public Health.

The complete transactions of these 2 meetings are in the January, February and April Journals of our society and every physician, especially the presidents and secretaries of county societies, will find therein material of great possible benefit.

The Pennsylvania State Medical Society, through Dr. Thomas G. Simonton, President, invited us to Pittsburgh for the third conference at the University Club of that city. I shall always remember this as one of the brightest days of my office incumbency. Dr. Frank Hammond, the distinguished Editor of the Pennsylvania State Medical Journal, presented a masterpiece on "What Constitutes an Ideal State Society Journal?" A very complimentary discussion, led by Dr. J. Bennett Morrison, was participated in by all those present. In a later issue, our Journal will publish this meeting report in full detail. After the meeting, we enjoyed a sightseeing tour of Pittsburgh and vicinity, followed by a splendid dinner at Butler, Pennsylvania.

The friendly relationship long existing between the Board of Medical Examiners and the State Medical Society still obtains; as does also a sympathetic understanding with all the other state agencies. Dr. Ireland, who has recently been appointed Director of Physical and Health Education in the Department of Public Instruction at Trenton, has brought to us some plans that will be of great mutual advantage in our educational work, and we are deeply indebted to him for his valuable suggestions. The State Hospital Association has helped very materially in our legislative campaign this year. The State Board of Education, Board of Health, Board of State Aid and Charities, State Bar Association, and State Tuberculosis League are all working with us in harmonious accord. In this day when "Foundations" with enormous wealth are entering into rural and urban health work, the community physicians will accomplish much more by hearty coöperation and guidance than by opposition to these movements.

Some of the most pleasant hours of the past year have been those spent in making 27

visits to the different county societies. We have found them all active and each one has held at least 4 meetings during the 12 months. Several counties have adopted the plan of monthly sessions except during July and August. Each county has had at least 1 meeting devoted to the subjects of Medical Welfare or Economics. The scientific programs have all been interesting. Many of the papers, which were not only carefully written but intensely interesting, were prepared by local members and were freely discussed—in some instances by the entire membership present. It is most gratifying to hear the visiting physicians, specialists and professors presenting practical subjects of timely interest. In one county, for instance, a noted Philadelphia internist gave the medical treatment of peptic and duodenal ulcer, and an outstanding professor of surgery from New York City, described the surgical procedure and its indications. It was a complete postgraduate course for most of us present. At another meeting, a leader in his specialty gave a most comprehensive lecture on "low-back pain". In these days of high heels and the consequent tilting of the female pelvis, what subject could have been more instructive?

The Tricounty Medical Society, composed of Morris, Sussex and Warren counties, has contributed much—both in scientific and social contacts to strengthen our work in its section.

Cumberland invited Cape May, Salem, Gloucester and Atlantic counties to join with them to entertain Dr. Gabriel Tucker, of Philadelphia, after he had delivered a masterly discourse on "Uses of the Bronchoscope; with Lantern Slides". As host, Cumberland proved herself true to hospitable traditions.

Gloucester invited all the adjoining counties to gather at the Woodbury Country Club to hear Dr. Morris Fishbein's fascinating and instructive lecture "Fads and Quackeries of Medicine" delivered in his inimitable humorous manner. The unanimous applause of a representative audience testified to its appreciation.

Camden gave one entire meeting to discussion of the Sheppard-Towner Act. Dr. Julius Levy, Director of the State Bureau of Child Hygiene, and Dr. Ellen Potter, of the Pennsylvania State Department of Health, dissected this Bill and gave a thorough and impartial outline of its virtues and weaknesses. Dr. Reik opened the discussion, which was freely participated in, and which later in the evening became quite heated. Our Executive Secretary's support of the American Medical Association's views was so convincing that when a motion was made that Camden County oppose reënactment of this Bill, not a dissenting voice was heard.

Time will not permit me to discuss these meetings further except to add that attendance was uniformly good; the largest number at a regular meeting was 360 and the smallest was 12. However, a large number of our members do not appreciate the work of their program committee nor the educational opportunities made possible for them.

In addition to regular county society meetings, I was also delighted to attend the annual banquets of Bergen, Hudson, Somerset, Mercer, Ocean, Gloucester, Cumberland and Burlington Counties.

The time allotted to the Annual Meeting of County Society Secretaries and Reporters, which has usually taken the form of a dinner given by the President during the June convention, has served so insignificantly for this very essential factor in mutual understanding of both state and county units, that the Board of Trustees voted us the privilege of having an all day session in Trenton last January. Dr. J. Bennett Morrison presented a paper on "The Modern Trend of County Society Functions"; and Dr. Reik presented a paper on "The Development and Correlation of County Medical Society Work". It was the general concensus of opinion of every one of the men present that new light had been shed on his work. Each county presented plans for future development, and it has been our pleasure since to see these plans mature and ripen into action, with increased attendance and deeper interest in their various county, state and national activities. I feel that the im-

portance of this conference justifies an annual appropriation for its continuance and so urge the House of Delegates to look with favor on this project. I take this opportunity to thank each county secretary individually, and all of them collectively, for hearty coöperation in the cause that is so close to our hearts —the advancement of organized medicine.

On December 18, 1928, the Board of Directors and Medical Board of the Bayonne Hospital unveiled and presented to that hospital, a bronze tablet in grateful appreciation of services rendered by Lucius Francis Donohoe, M.D., F.A.C.S., one of our past-presidents, in recognition of faithful and invaluable services rendered in the building of the hospital. This presentation followed a most enjoyable banquet. Many beautiful testimonies of friendship and esteem were expressed by the several speakers, and it was my pleasure to convey to the guests assembled what Dr. Donohoe has meant to our organization and to testify to my personal esteem for him. His modesty in replying to the words of praise heaped upon him would have made your pulse more rapid and your breast fill with pride to count him one of your friends. "Modesty is to merit what shade is to figures in a picture; it gives it strength and makes it stand out."

For many years it has been the dream of Dr. Samuel B. English, Superintendent of Glen Gardner Sanatorium, and of the Board of Managers, that some day tuberculous children might enjoy the same facilities as adults at their institution. The pressing need of a separate building for their treatment and care has long been evident. On December 15, 1928, we were invited to participate in the ceremonies in which Governor Harry E. Moore accepted on behalf of the State of New Jersey, from Mr. William J. Ellis, Commissioner of Institutions and Agencies, a modern, thoroughly equipped and beautiful building, dedicated to the restoration to health of the tuberculous children of our great state, regardless of creed or color. As we were gathered together in front of this imposing structure, situated on top of a hill overlooking the Orange Mountains under ideal sunshine, we were led by the Governor back to our firm foundation—the Bible—"I will lift up mine eyes unto the hills from whence cometh my strength". We thought of the thousands who had found their strength restored and health regained by looking unto these hills. Thus these workers in the prevention and cure of tuberculosis have seen materialize one of their fondest hopes.

On March 15, 1929, Dr. David F. Weeks, Superintendent of the Village for Epileptics at Skillman for 22 years, was called unto his fathers. Dr. Weeks' devotion to duty, his tremendous energy and noble character make his passing a great loss not only to Skillman but to the state society. The services which were held in the School Chapel were well attended and most impressive to us all.

Cape May County tendered a Testimonial Dinner to its Secretary, Dr. Eugene Way, on the anniversary of his completion of 50 consecutive years of practice; all the more remarkable because he has never lost a day on account of personal illness. Dr. A. C. Crowe, Counselor of the Fifth District, was toastmaster. The speakers included prominent laymen and ministers of his native county; 2 of his classmates at Jefferson Medical College and several of the past and present officers of the state society were also in attendance.

On Wednesday night last, we gathered around the banquet table at Hotel Chelsea to honor Dr. Andrew F. McBride, as a testimonial to his 5 years as State Commissioner of Labor and his long and faithful service as Chairman of the Welfare Committee. The efficient manner in which he has conducted these offices is so well known to you that I will not attempt to describe it. Dr. McBride is our incoming President and we feel that our ship of state will be safe under his pilotage.

One of the most enjoyable occasions of the year was the banquet given by the Medical Club of Philadelphia to the Presidents of the Pennsylvania, Delaware and New Jersey Medical Societies, all of whom happened to be members of the club. Dr. Orlando Petty, President of the Club, was toastmaster and

his eulogistic remarks will long be remembered.

I believe that the Woman's Auxiliary has made a distinct contribution to our state work through its efforts in almost every county. The results of its educational program cannot be fully accounted in so short a time. Not the least important part of its work has been the placing of "Hygeia" in the public and school libraries, Y. W. C. A. buildings, public waiting rooms, and other places where people frequently gather. Dissemination of knowledge pertaining to health through this medium will be of inestimable benefit to the public. The lectures of our Field Secretary, as arranged for by the various county auxiliaries, before Parent Teacher Associations, women's and men's clubs, high school groups, etc., on "Death Control", "Life of Pasteur", "The Story of Toxin-Antitoxin", are beginning to show results. Our auxiliary members are making themselves intelligently conversant with the details of our work and problems that they may better assist us in our program of preventive medicine, and in other lines when called upon to do so. Undoubtedly, a fine spirit of fraternal interest has been created by the annual social gatherings in which physicians and their wives and families find mutual enjoyment. We have attended 7 of these delightful occasions and can personally testify to their merit. If this auxiliary movement did no more than to unite our profession more closely together, it would have accomplished much. I am more deeply impressed with the power and strength of this organization for the good of the medical profession each year that we are privileged to have its assistance, and I bespeak for it your hearty confidence and aid in its efforts.

Dr. Frederic J. Quigley, Chairman of Committee on Revision of Constitution and By-Laws, has been one of our most tireless workers this year. This committee has held frequent meetings, necessarily of long duration because the character of its work has been tedious—every feature had to be taken up and gone over in detail from every angle. The Chairman has had a wide correspondence with other state societies, trying to fit into our government the good points gleaned from them and to eliminate their pitfalls, and at the same time have them conform to our charter and the American Medical Association's standards.

Dr. Frank W. Pinneo is ever on the alert to find some new factor to add to the efficiency of our Group Accident and Health and Automobile Insurance. The premiums for this type of insurance are the lowest of which we have knowledge.

It is with a keen sense of satisfaction that we can announce that Dr. Christopher C. Beling has again been restored to active duty. His long and tedious illness has given us no little concern, as he has been Chairman of the Medical Defense and Indemnity Insurance Committee since its inception and his guardianship has been most efficient.

Credit for success of the scientific sections of this meeting (I believe these are the best and most widely discussed papers that we have ever had) goes to Dr. W. E. Darnall and his committee—and only those men know the work attached to this service.

Drs. Martin W. Reddan and W. D. Olmstead have prepared a program of which we are justly proud, though in making their arrangements they have been greatly handicapped by the construction going on in this building; their space was all sold out several weeks ago, and every exhibit and advertisement conforms to A. M. A. standards.

In a conversation with Dr. Morris Fishbein, Editor of the A. M. A. Journal, on May 23, he complimented Dr. Reik and New Jersey on the steady *growth, development* and *character* of our Journal. This coming spontaneously from such a distinguished authority filled my heart with joy. The favorable comments by the Pennsylvania and New York Societies at Pittsburgh last month, and several flattering editorials in other journals, must have been most pleasing to Dr. Reik. Dr. Morrison and I were deprived of his companionship and guidance in making visitations to most of the county societies because of our Editor's physical disability. Many times we longed for his counsel when problems arose

that he could have settled in a few words. However, what has been our loss in this direction has been more than compensated for in the quantity and quality of reading matter in the Journal. I am sure that all of you have noted the very appreciable improvement in our Journal. This is due to the fact that Dr. Reik's field duties have been lightened, thus enabling him to limit himself to editorial work. I know that you will agree with me that the Journal of the Medical Society of New Jersey stands as one monument to the unexcelled ability of its Editor. Presidents move on each year but executive secretaries and competent editors of Dr. Reik's type are the product of an age.

I have been impressed many times this year with the untiring efforts and great ability of our Secretary, Dr. J. Bennett Morrison. His keen judgment of human nature and his wide knowledge of medical affairs make him indispensable to the society and lighten immeasurably the duties of its President. I believe his visits to the county units, where his timely advice is given in plain, straightforward addresses on medical economics, have been the most powerful factor in the establishing of our state society on such a firm foundation.

Permit me at this time to express the society's appreciation of the work accomplished by our Field Secretary, Mrs. E. C. Taneyhill. You have listened with keen interest to the report of her many and varied activities throughout the year. My one regret is that more of the county societies have not availed themselves of her talents. Her fluent and convincing speeches have impressed most favorably all of the groups before which she has appeared. Dr. Vander Veer, the recently elected President of the New York State Medical Society, stated that his careful analysis of Mrs. Taneyhill's work convinces him of the need in his society of such a woman. This was most pleasing to me and I am sure must be to Mrs. Taneyhill.

The alarming increase of mental defectives in our state demands definite and immediate attention and action. There is voluminous literature on the subject covering practically every phase of the problem; but what of the cure? I propose that our Welfare Committee be instructed to draft a Bill to be presented at the coming session of our Legislature, or perhaps better stated, at the time they think most propitious. Title to be: "Sterilization of Selected Cases of Mental Defectives and Epileptics within the Institutions of the State of New Jersey". Several states have already passed such legislation and have it now successfully in operation. Sterilization is the only sure remedy to rectify this most serious affliction.

Dr. Morrison in his report has outlined the ways and means for our membership to obtain postgraduate instruction next winter. These plans were made in conjunction with President Thomas and the University Extension Department of Rutgers, now known as the University of New Jersey. These courses will be given by competent men, highly qualified in their respective fields, aided by such outside talent as may be necessary or desirable, and at hospitals most convenient and offering the best facilities. We have given freely of our time to consummate this goal of postgraduate study, and it is our most sincere desire that a large number of our members will avail themselves of this opportunity.

In my report to you of the transactions of the society for the past year, I have tried to picture the progress made in the many activities of the various departments. I have supreme confidence that under the guidance of my worthy and distinguished successor, Dr. Andrew F. McBride, and with the same diligent coöperation of every individual physician that has been extended to me, there will be no remission in the advance of any one of the projects undertaken during my incumbency. I wish for him all of the joy that I have experienced in this service.

In conclusion, I wish again to express to you my appreciation of the distinguished honor and confidence that it has been my privilege to enjoy as the executive head of this, the most venerable medical society in these United States.

A BLOOD GROUPING CHART

Robert A. Kilduffe, M.D.,

Director Laboratories, Atlantic City Hospital,

Atlantic City, N. J.

The lack of uniformity in blood grouping terminology is so well recognized as a source of possible confusion that there is strong sentiment for replacement of both the Moss and Jansky grouping by that proposed by Landsteiner.

The following tabulation placed under the glass top of the table on which blood grouping is done has been found useful in these laboratories and is here presented for its possible use to others.

In these laboratories it is the custom to use blood grouping by the Vincent slide method to select possibly suitable donors whose final selection is determined by a direct compatibility test and, of course, by the result of Wassermann and Kahn tests.

BLOOD GROUPING

Moss	Jansky	New	Serum contains agglutinins	Corpuscles contain agglutinogens	Effect of serum	Capacity of cells
IV	I	O	A and B	None	agglutinates cells of A, B, AB (II, III, I)	not agglutinated by any serum
II	II	A	B	a	agglutinates cells of B, AB (III, I)	agglutinated by serum of O and B (IV and III)
III	III	B	A	b	agglutinates cells of A, AB (II, I)	agglutinated by serum of O, A (IV, 11)
I	IV	AB	None	a and b	no agglutination	agglutinated by serum of O. A. B (IV, II, III)

COMPATIBILITY

Recipient	Donor may be
AB (I Moss)	A, B, O (II, III, IV Moss)
A (II Moss)	A, O (II, IV Moss)
B (III Moss	B, O (III, IV Moss)
O (IV Moss)	O (IV Moss)

ORTHOPEDIC HIGHLIGHTS OF INTEREST TO THE GENERAL PRACTITIONER

B. Franklin Buzby, M.D., F.A.C.S.,

Camden, N. J.

Many orthopedic conditions, while commonplace to the man doing this work, are infrequently encountered in the experience of the general practitioner. Because of often asked questions—how to diagnose these conditions, when treatment should begin, what it should consist of and what of the prognosis—it is felt that a not too comprehensive paper concerning these problems would be indicated.

Of the congenital abnormalities, club foot is justly alarming to the parents. The most frequently encountered types are *pes equino varus,* where the toe is pointed down and the sole turned in, and *pes calcaneo valgus,* where the toe is up and the sole turned out, the foot often lying against the outer side of the leg. Treatment should begin at once, or as has been said, "as soon as the foot is born". It consists, during the first 3 weeks, of stretching, by the mother or nurse, in the direction

of over-correction, done vigorously before each feeding. After 3 weeks of age, when the baby's skin will tolerate it, the foot should be stretched and strapped with adhesive in the over-corrected position once each week, and the maternal efforts continued. Usually the feet are easily corrected by this method, the *varus* type of deformity being much more resistant to treatment as well as occurring more frequently. Braces are occasionally necessary but only after the child walks. In later cases stretching under an anesthetic followed by plaster of Paris casts in the over-corrected position is the usual method of choice, and in about only 5% of cases is it necessary to do any open operation; a surgical problem with which I shall not burden you.

Brachial birth injury occurs as a result of stretching or tearing of the brachial plexus from pressure of forceps, or pulling on the caught head or impinged shoulder, in delivery. The condition is evidenced immediately by a perfectly limp arm and hand and treatment should consist of putting the part at rest in the position of abduction and external rotation with the elbow flexed and forearm supinated, best obtained in the new-born by pinning the shirt sleeve containing the arm to the mattress. Do not fasten it to the body. The reason for this position is that the muscles which recover first, and often spontaneously, are the ones which pull the arm in the opposite direction and if not protected the more slowly recovering muscles will be continuously stretched and ultimate return of function will thus be delayed. Massage should not be given within the first month because of the tenderness and soreness resulting from the nerve injury. A brace should be applied to hold the arm as above described. After about 1 month, massage, guided active and passive motion, should be instituted. The brace should be worn constantly day and night for at least 6 months. Many children recover full function; others lack only full external rotation and abduction. In case of complete severance of the plexus, of course the outlook is hopeless without open operation on the divided nerves.

Spastic paralysis, the result of hemorrhages into the brain substance at birth or from convulsions in early childhood, is the hardest problem the orthopedist has to face. This condition may be expected in the newly born child whom it is difficult to resuscitate—a "blue baby", slow to nurse, and who whines weakly for the first few days of life. The actual disability is generally noticed at about 9 months of age when the child is clumsy in movements of hands or feet, does not sit alone, and appears dull. As it grows older these disabilities grow in intensity, often resulting in inability to walk alone or talk intelligently until 4 or 5 years of age. Treatment is helpful, never curative, and consists in early massage and muscle training. The difficulty is that we are dealing with patients deficient mentally as well as physically, and they are unable to comprehend and concentrate on the effort necessary to secure good results by training alone. Braces are often indicated as an aid to locomotion. Operations to lengthen contracted tendons, or to reduce some of the peripheral nerve supply to the stronger muscles, and thus equalize muscle strength and permit the patient to exercise more voluntary control, are of considerable aid, especially in the lower extremities, in getting the patient to walk without support. These patients never catch up to their fellows either mentally or physically.

Congenital dislocation of the hip is usually recognized when the child starts to walk, by a painless limp without other disability, and, when bilateral, by a peculiar waddling gait because the opposite side of the pelvis droops when weight is borne mainly on one side; other findings are an empty acetabulum, widening of the perineum and elevation of the trochanter, and, of course, x-ray pictures always show the dislocation. The time to begin treatment is as soon as the condition is recognized, for nursing of the child is made easy by aid of the elevated Bradford frame. Some few difficult cases, because of an acetabulum filled with scar tissue, require open operation and the same after care as the closed reduction. Late cases are best made painless by a shelf operation to form a new acetabulum. The outlook is good by one means or another.

Torticollis, or wry neck, results from fibrosis or spastic contracture of the sternocleidomastoid muscle, and is caused by hemorrhage into the muscle from birth injury or by inflammatory conditions involving the muscle secondary to neighboring cellulitis or lymphadenitis. It is easily recognized; the muscle is tight, and the head is held toward the affected side while the face turns in the opposite direction. Treatment should be instituted early and consists of massage, passive stretching, and exercises for over-correction. If this fails, open division of the contracted muscle, followed by plaster of Paris support in the over-corrected position, is indicated. This should be done before secondary hemiatrophy of the face and scoliosis have become advanced; which condition always follows in untreated cases.

Of the truly acquired deformities, those which are secondary to rickets are met with probably more often than any others; these are bow-legs, knock-knees and spinal curvature. Bow-legs and knock-knees result from strains on the extremities when the lime salts in the bones are of insufficient concentration. Normally the bones of the legs show no evidence of giving way under postural stresses after the age of 30 months; hence, treatment should be started before that period, and then consists in wearing proper braces and taking constitutional treatment for the underlying condition—rickets. If permitted to progress in the hope that the child will "outgrow" the deformity and the bones become solid, open operation and osteotomy is likely to become the only available method of treatment. The results in either case are uniformly good.

Tuberculosis of joints and cancer must be recognized early to get the best results from treatment. Regardless of the part involved, the general signs are the same—pain locally after use, or referred to the next joint below; limitation of motion in all directions, but in hyperextension especially; protective muscle spasm which pulls the part into that deformity which allows for the greatest swelling in the joint; night cries caused by spasmodic protective muscle spasm; evening rise in temperature; and loss of weight. An early x-ray picture is always negative, and even later in the disease looks foggy as though the film were poor. The intradermic injection of old tuberculin is an aid in diagnosis, with its resultant increase in local joint symptoms, redness at the injection site, and the rise in temperature at the eighteenth to twenty-second hour when positive. When the diagnosis is not clear, exploratory arthrotomy to obtain tissue for biopsy is definitely indicated, for if the case is one of tuberculosis years of treatment are indicated. When the patient is tuberculous we must treat him systemically as well as locally. The general treatment should be the same as for tuberculosis elsewhere, and, locally, rest is the thing of greatest importance regardless of how obtained. Since by conservative treatment cases may be quiet for years, and then flare up again, fusion operations to give permanent fixation of the joint should be considered early, because our hope in the conservative care is for early fusion, since in this way only does the disease become inactive. Secondary tuberculosis elsewhere, especially in the meninges and lungs, is the worst complication. We must always be on the alert to prevent secondary infections of cold abscesses. This is done by *never* incising and draining them. Parts should be permitted to ankylose in the position of greatest use and not in a deforming shape without good function.

There are many conditions involving the back and lower extremities which used to be considered as tuberculous in origin, but which are probably results of low grade pyogenic infections. I mention them in passing to note treatment and prognosis. In each case the disease is an epiphysitis. Scheuremann's disease of the spine gives best results by a brace and exercises for posture. Perthe's disease of the hip requires a few months of traction in bed followed by a cast or brace until the disease is quiet, about a year in all. Schlatter-Osgood disease of the tibial tubercle requires fixation in full extension for 2 or 3 months only. Kohler's disease of the tarsal scaphoid requires fixation for 2 or 3 months followed by support of the longitudinal arch of the foot for 2 or 3 years. Freiberg's dis-

ease of the second metatarsal requires support of the anterior arch of the foot for a few months. Positive diagnosis is made by radiograph, although the conditions can be suspected by the few typical physical signs directed locally.

All cases become quiet under the above treatment but changes in shape of the affected bones may cause pain and discomfort in later years, especially in the case of disease of the hip and metatarsal joints.

The problem of infantile paralysis is, in the beginning, one of preventing deformities by splints or braces. External heat, preferably by the hot bath for at least a half-hour daily, is of great value. Massage should *not* be given until tenderness has gone from the muscles, usually after 4 months from the onset, and no use of the part should be permitted during this period. Galvanism may be given, not to the extent of tiring the muscles, about 6 months after the onset. Return, in part, of muscle power may take place up to 2 years after the onset, so no operations except those to overcome deformities should be done before this period has elapsed. After this time stabilizing bone operations are the procedures of choice, either along with or without tendon transplantations. Tendon transplantations alone have given fair results for awhile but they stretch and the deformities and disabilities recur. Our aim here is to give the patient the best function possible by putting the remaining useful muscles to work under the most favorable circumstances.

Spinal curvature usually means lateral curvature, and is caused by rickets, infantile paralysis, postural defects such as a short or crippled leg, torticollis, defective vision or hearing, and general poor muscular development. Few cases can be entirely cured, but all can be helped by exercises before the age period when the spine becomes fixed. Mild cases require exercises only, more severe cases, especially those that can be manually corrected, do well with braces and exercises, while those most severe cases with rotation of the vertebral bodies and secondary angulated deformities of the ribs do best in the beginning by lateral weight traction in bed with weight pulling on the apex of the curve and the pelvis and shoulder fixed. This should be practiced for at least 2 months, running the weight up to 60 lb. in some cases, and is best followed by a fusion operation on the spine to prevent recurrence. If no operation is done, braces are worn and exercises given; without operation, unfortunately, there is some variable amount of recurrence in spite of active conservative follow-up treatment.

Antero-posterior curvature, round shoulders, is best treated by exercises alone, although occasionally light braces are necessary, and with a coöperative patient practically every case is cured.

Metastatic infectious conditions, including arthritis, offer quite a problem but if we direct investigation along definite empiric lines and treat patients accordingly, rather than to drug them all, many will be decidedly benefited. First, we must remove all potential foci in the teeth, tonsils, nose, gall-bladder, appendix, genito-urinary tract, and, of very great importance, the colon. Metabolic disturbances must be corrected by making fat patients thinner and by increasing nutrition of the thin ones. Internal secretions must be balanced. Blood sugar and blood nitrogenous contents must be made to approach normal. All postural defects and mechanical strains must be eliminated. If these things be done first there will not be great need for drugs and physiotherapy, which we all must admit are purely transitory in their benefits. In the shoulder, while both are of metastatic origin, the differentiation between so-called neuritis and true periarthritis is important. In the former, there should be no limitation of passive motion; while in the latter the loss of passive external rotation and abduction is one of our diagnostic signs. Treatment in the latter, to be of short duration, necessitates the shoulder being put and kept in the position of abduction and external rotation, while in the former the arm can be slung at the side. The distinction between true sciatic neuritis and referred sciatic pain often confronts us. In the former we have atrophy of the affected leg, tenderness all along the course of the sciatic nerve, and we are able with the knee extended to flex the hip but slightly on the body. The treatment in true sciatica con-

sists, in the resisting cases, in stretching the nerve under an anesthetic by flexing the hip with the knee extended and, this failing to give relief, to cut down, expose the nerve and strip its sheath, and then stretch it until relief is obtained. We should be able to differentiate between lumbago and sacro-iliac and lumbosacral sprains or inflammations. The former is in the muscle only and passive motion of the hips and joints below the affected muscles should cause no discomfort. We should not, however, overlook the fact that lumbago—lumbar myalgia would be a better name—often is present, secondary to sacro-iliac and lumbosacral joint derangements. These latter show tenderness over the affected part, pain on pressure together of the iliac crests, and pain on passive motion of the joints. True low back disturbances require support either by adhesive plaster, plaster of Paris or braces, and if not thus relieved a fusion operation of some sort is the procedure of choice.

In these days of much riding and little walking, flat foot, or chronic foot strain, is quite a problem. Feet should be examined without covering, with the patient standing, first facing and then with his back to the examiner. The fact that one can get his fingers under the longitudinal arch means little, for this procedure is impossible only in the totally flat foot, and often these are painless. What we see are prominence of the scaphoid, bursal sacs anterior to the external maleoli, and the valgus deformity of the feet. There is tenderness over the bursal sac, plantar fascia, tibial tendons and scaphoid bones. Passively the joints are often flexible and motion painless. Callus under the metatarsal heads always means a flat front or metatarsal arch. Treatment consists in shoes of proper strength, shape and size, plus additional support for the flattened arch. Specific exercises to strengthen the over-stretched muscles are indicated. In case the tarsal or tarsometatarsal joints are rigid, stretching and manipulations under an anesthetic followed by plaster of Paris fixation and, later, physiotherapy, plus the above mentioned supports, give satisfactory relief from symptoms.

While the foregoing facts may seem to be fundamental and more or less taken for granted, still it is hoped that this brief review may answer questions often arising in the minds of many of you concerning a few of our orthopedic problems that appear in general practice.

TREATMENT OF PNEUMONIA

Berthold T. D. Schwartz, M.D.,
Jersey City, N. J.,

The outstanding new contributions to the treatment of pneumonia can be discussed under the following headings: (1) Specific serum treatment; (2) oxygen therapy; (3) polyvalent vaccine treatment; (4) nonspecific.

Treatment and prognosis are dependent upon the type of pneumonia, which is divided into 4 etiologic groups:

	Incidence	Mortality without serum treatment	Serum used
Atypical	7.2%	23	
Type 1	34.1	35.6	7.5
Type 2	25.7	29.5	Slight lowering.
Type 3	10.8	44.3	No response
Type 4	22	13.2	Response seems indicated in 3 subtypes, for which serum is now experimentally tried.

Types 1, 2, and 3 are usually exogenous (sick room) infections. Good hygiene of the sick room and caution on part of visitors will lower the incidence of contagion. Type 4 consists of all other types of pneumococci (several hundred) not classified under the other 3 types. This infection is more common in rural districts, and in young and aged persons. It is usually an autogeneous infection, and arises under conditions of lowered resistance in the individual following exposure, injury, or anesthesia. Persons that have type 4 pneumonia generally give history of prodromal stage; those that have type 1, 2, or 3 had a sudden attack without warning.

Blood cultures (6 c.c. of blood withdrawn) are positive in about 27% of all cases.

The mortality rate, in cases excluding type 1 infections when culture is negative, is about

11.6%; when culture is positive mortality is about 67.1%.

In cases of bacteremia with type 2 and 4 where more than 20 colonies per c.c. are found, the prognosis is poor. In type 3, prognosis is invariably fatal when there are more than 1-2 colonies per c.c. In type 1 bacteremias, the blood is rendered sterile in about 80% of cases. In type 2 bacteremia of slight extent, the blood can be sterilized by injection of type 2 antiserum and this favors recovery; in those cases where the blood is sterile, it is felt that the administration of type 2 antiserum will always confer a balance of protective substances in the patient's blood.

Specific Precipitin Reaction in the Urine

Intensity of the reaction bears a close relation to severity of the infection. Type 3 pneumococcic forms the largest amount of this soluble precipitin substance; next follows type 2; and last type 1. Elaboration of this substance in type 4 has not been tested for, due to the lack of homologous immune serum for the specific strains concerned, except for 3 large strains now being experimentally tried by Park.

Incidence of precipitin reaction:

	Positive	Mortality
Type 1	57.1%	
Type 2	71.4	50%
Type 3	70.5	58

Diagnosis of Type

When a diagnosis of pneumonia is made, the type of pneumonia should be determined. The patient should be instructed to rinse his mouth with some antiseptic solution, then try to raise sputum from the deeper air passages, and as free as possible from saliva. The bacteriologist may then determine the type by any one or all of 3 methods. (1) Demonstration of precipitable substance in sputum. Positive results about 80% of cases—time required about 30 minutes. Amount of sputum required 3-10 c.c. (2) Cultural method of Avery, about 6 hours. Amount of sputum required, size of bean. (3) Mouse inoculation method, about 8 hours. Amount of sputum required, size of bean. Or collect about 2 oz. of urine and determine specific precipitin substance present. Positive in about 65% of all cases (usually the more severe cases).

Administration of Antiserums

The finding of a type 1 infection indicates the use of antipneumococcic serum type 1, with probably curative results. In type 2, antiserum may help prevent a moderate case from becoming severe.

Preparatory to intravenous injection, determine whether individual is susceptible to foreign protein by injection of 0.02 c.c. of 1:100 dilution serum intracutaneously. Inject equal amount of saline in same horizontal plane about 1 in. away from control. The formation of a large wheal, in hypersensitive individual, is shown in several minutes. These patients must be desensitized first. Anaphylactic reactions occur in about 2% of cases; give adrenalin 8 minims, or atropin sulphate gr. 1/150, or both. This generally gives prompt relief.

The antiserum is given in 150 c.c. amounts intravenously every 8 hours, until temperature stays definitely below 102°, and patient is clinically definitely improved. Usually about 3 doses are required. The use of Huntoon's antipneumococcic antibody solution (antibody of type 1 greatest, then 2, and 3 in order) may be given instead. Advantage is claimed that no anaphylactic or serum reaction follows. Felton's antipneumococcic type 1 serum is a purified concentration of the antipneumococcic serum; 5-10 c.c. doses are given intravenously and correspond to 50-150 c.c. of the whole serum.

Because of the very favorable prognosis in children, and difficulty of intravenous injection, the use of antiserum in children is not advised.

Alexander Lambert reports results obtained with mixed stock vaccines in 221 cases of pneumonia treated in Bellevue Hospital from December 1, 1922, to April 25, 1926. The vaccine used was a mixed stock vaccine sterilized without heat, containing 1,000,000,000 bacteria to the cubic centimeter. It contains

200,000,000 Pfeiffer's influenza bacillus, 100,000,000 pneumococcus, 100,000,000 streptococcus, 200,000,000 Micrococcus catarrhalis and 200,000,000 each of Staphylococcus aureus and Staphylococcus albus. The dosage given was 1-2 c.c., usually 1.5 c.c., intramuscularly every 6 hours as long as the temperature was above 99°, and when it fell below 99° the dose was cut to every 12 hours for one or two doses, and then to once in 24 hours for one or 2 days, and the vaccine treatment ceased. Lambert reports the following results:

Type 1	vaccine	patients,	mortality	8%
"	" control	"	"	17%
"	2 vaccine	"	"	16%
"	" control	"	"	72.7%
"	3 vaccine	"	"	12%
"	" control	"	"	35%
"	4 vaccine	"	"	17%
"	" control	"	"	27%

No rise of temperature follows administration of these vaccines and the pulse often improves. There is no proteid reaction with vaccine, and the vaccines are not limited to any type of pneumococcus. They show a distinct lowering of mortality in all types.

However, Cole, Chickering, Simpson and others believe that active immunization in so acute short-lived a disease as pneumonia is improbable, and do not believe in vaccine therapy in this disease. They do concede some prophylactic value. Lister, in South Africa, and other workers have great faith in administration of vaccine prophylactically.

Use of oxygen is freely admitted to be of value in a supportative way, aiding in prolonging life until the immunity mechanism is able to accomplish recovery. Cyanosis is the best indication for its use, although in anemic patients this is a very poor criterion. Here rapid shallow breathing and mental confusion are better indicators. There is at present no ideal method for the administration of oxygen by the general practitioner in the patient's home. The best is the use of a nasal catheter. Barack demonstrated that the oxygen flow as read on a gauge meter at a high rate—2 liters per minute—increases concentration of nasopharyngeal air as high as 30-33%, which is beneficial in mild and moderate cases of anoxemia but for the more serious cases higher concentrations are generally necessary and these cannot be obtained by the catheter method. These cases require the use of a portable oxygen tent. The hospital of the Rockefeller Institute, and the Presbyterian Hospital, N. Y. C., have special oxygen chambers.

The use of 5% CO_2, a respiratory stimulant with high concentration of oxygen, has been suggested as promising a great prophylactic and possibly therapeutic value; it causes hyperpnea which permits thorough ventilation of lungs and makes atelectasis less likely, therefore conserving the amount of pulmonary tissue for respiration.

Continued favorable literature appears in regard to the use of diathermy; and more recently ultra-violet rays to increase the general vitality, treatment of the King of England being a very conspicuous case. The use of x-rays in unresolved pneumonia is reported with apparent benefit.

Acidosis (low blood bicarbonate) has been proved present in pneumonia. The use of alkali (sod. citrate) until the urine is alkaline is advised. Specific chemotherapy, optochin base, while holding great promise in carefully observed cases at the hospital of the Rockefeller Institute, showed no demonstrable good effects and the danger of blindness has caused its discontinuance.

Stress is laid on the following measures in the treatment of pneumonia:

(1) Complete physical and mental rest from the start of illness.

(2) Copious ingestion of fluids.

(3) Orthopneic position.

(4) The free circulation of air in the room; if necessary effected by fans.

(5) Early use of antiserum.

(6) Early and continuous use of oxygen in a proper amount when slightest cyanosis appears.

(7) Physiotherapy.

(8) Use of digitalis in heart failure, and prophylactically, especially in adults.

SOME EYE CONDITIONS OF GENERAL INTEREST

W. Blake Gibb, M.D.,
Morristown, N. J.

The relation of the eye to general medicine is a tremendous subject, so large in fact that many papers could be written about it. However, as time is short, and as I have no desire to bore you, I have selected a few diseases met with in every day practice, which I trust will be of interest to you.

All of you will remember how in your old student days you used to try to cut the eye clinics; they were so uninteresting; there was nothing you could see; and the professor talked about conditions of the eye which you immediately forgot. The result was that when you started out in practice the eye-grounds constituted a mystery reserved for the specialist. I am quite sure that I was the same as the rest of you; in fact, I know that when I left school optic neuritis and choked-disc were mere words at the sound of which I would look wise only because I had heard our old professor mention them. However, with the background of several years as a general practitioner, I began to take up study of the eye, and then began to realize the many fine points in diagnosis that I had missed through my lack of knowledge of the ophthalmoscope.

This instrument was invented by Helmholtz, in 1851, so that he could study pathologic changes in the retina and vitreous of the living eye, which before had been observed only in the cadaver. Naturally, it was a crude affair, but in the course of time great improvement was made, and now we have the electric ophthalmoscope, a small handy instrument, the use of which should be familiar to every medical man. A little practice, a little patience, and you will be able to see the retinal vessels as easily as you listen to the heartbeats with your stethoscope.

A few of the common diseases which evidence ocular changes may be mentioned. The first is arteriosclerosis, and nowhere can the condition of the arteries be so easily and so advantageously studied as in observing the retinal arteries. In the early stages, the first noticeable change is an increased reflex from the arteries; they appear like copper wires, and the vessels become tortuous, almost like corkscrews. This is probably coincident with commencement of thickening of the middle coat of the arteries. Later, as the walls become more thickened, we notice that where the veins are crossed by the arteries there is an enlargement of the vein, due to pressure, and that the vein, if meeting an artery at an angle of 30°, will turn and cross under the artery at right angles, thereby taking the shortest route. When this occurs, arteriosclerosis is well advanced. As the condition progresses, hemorrhages may be seen beside the vessels and in the macular region. These may be small and flame-shaped, or of good size and interfering markedly with vision. Later on, the lumen of the vessel may become irregular, dilated in some places and almost obliterated in others. Exudates occur, in the form of white spots, the disc becomes swollen, and an arteriosclerotic retinitis results. What a wonderful picture it is to follow, and of what help in making a prognosis; for, as a rule, the cerebral vessels are suffering changes similar to those of the retina.

Now let me speak about albuminuric retinitis. It rarely occurs in acute nephritis, but usually indicates that the kidney disease is of long standing. Chronic interstitial nephritis is the most frequent cause. Albuminuric retinitis has a prognostic value, for seldom do patients live 2 years after its appearance. Retinitis occurring with nephritis of pregnancy conveys a less serious prognosis; that is, if there is no history of previous chronic nephritis. The usual picture is a swollen optic nerve head, dilated vessels, many fine hemorrhages around the disc, and exudates like cotton wool patches around the macula. Here they often radiate in lines giving rise to the familiar star figure. The vision is, as a rule, impaired. Is it possible to differentiate the types of nephritis by appearance of the fundus? This can occasionally be done. In parenchymatous nephritis the toxic element prevails, and the vascular change is less im-

portant, hence the cotton wool patches or areas of exudate are conspicuous; while in interstitial nephritis, or arteriosclerotic kidney, the change is largely vascular. Between these extremes are all the different grades of nephritis where the diagnosis as to true type is just as difficult with the ophthalmoscope as it occasionally is by urinalysis.

Diabetes is another disease which frequently manifests itself by changes in the eye. Sudden myopic changes in refraction are found in early cases of diabetes. All diabetics are subject to cataracts and, strange to say, many of them coming to operation recover very well. Changes in the fundus are observed, the chief being well defined areas of exudate, white or waxy in appearance, having no tendency to form any definite star-like arrangement. Hemorrhages occur, but are usually not flame-shaped. There is little swelling of the disc, and vascular changes do not occur unless there is an associated nephritis or arteriosclerosis. When retinal changes do occur in diabetes, the prognosis is not so serious as with retinitis associated with nephritis.

What is a choked-disc, and what does it signify? Choked-disc is a swelling of the optic nerve-head due to intracranial pressure. The disc is raised, its edges are indistinct, and the edema extends over into the neighboring retina. There may be minute hemorrhages, and the blood-vessels, especially the veins, very much enlarged and tortuous. Vision may at first be but little interfered with, but after the pressure has existed a short while, vision becomes rapidly reduced and, unless relief is obtained, blindness will follow. It is one of the cardinal symptoms of brain tumor.

The next condition I wish to mention is one of the most serious diseases which oculists have to treat; that is, glaucoma or hardening of the eye-ball. It occurs usually in high strung, middle-aged people. Its course is insidious and without pain unless an acute attack supervenes. The early symptoms are: periods of blurred vision, and the seeing of rings around lights at night, "halos", as they are called. These symptoms may be complained of for 4-5 years before an acute attack arises or marked reduction of vision brings the patient to the oculist. Whenever a middle-aged person complains of periods of blurred vision, halos, and concurring gastric upsets, think of glaucoma. The sooner such patients are brought under treatment, the longer will they be able to enjoy the most precious of our senses—good vision. May I just call your attention to the symptoms of an acute attack of glaucoma; sudden blurring of vision, followed promptly by redness of the eye, severe pain—not only in the eye but going up into the forehead—profuse lacrimation, and sensitiveness to light; frequently, nausea and vomiting will occur. On examination, there will be: redness of the eye; hazy or steamy cornea; pupil dilated and inactive to light; the eye will be stony hard. Accurate and quick diagnosis is necessary and treatment must be immediate to be effective.

There are one or two other simple and more obvious conditions of the eye that I want to mention. For instance, the common, ordinary stye; an inflammation of the follicles of the eyelash or of a meibomian duct. The cause of styes is usually infective, dietetic, or refractive. In treatment of these cases, in children, I always look for the source of infection in the tonsils or adenoids, and it is surprising how frequently the stye clears up after removal of these foci of infection. I always refer these patients to their family physician for a corrective diet—forbidding candy, sugars and starches—and for the elimination of any intestinal toxemia. In adults, look for infected teeth and intestinal toxemia. In all cases, I finally make a careful examination for refractive errors.

Speaking of foci of infection causing acute eye conditions, may I say that infected teeth, then tonsils, sinuses, and intestinal toxemias, in the order named, have been the chief offenders.

And now, the last thing which I wish to speak about, and probably the most common, is squint. There is nothing so disfiguring to a child as being "cross-eyed", and nothing so lamentable as to have it left untreated. I am sure that none of us would want our children to grow up in such a plight. In years gone by, the old family physician used to tell the

parents not to worry, that the child would out-grow it. Once in a while it did, but then the child had an amblyopic eye, that is, one in which the vision is practically destroyed. Thank goodness, things have changed and there is an improvement, although there is room for still more. Most squints develop in the first 2 years of life, usually following some illness like measles, scarlet fever or whooping cough. These cases should be seen by the oculist as early as possible, at least by the third year. Careful refraction, under atropin, should be done and the correct glasses prescribed; 90% can have straight eyes by the time they are 6-7 years old. Do not wait until they are 5 or 6 before sending them to the oculist. It is in the first 6 years of life that the fusion power is developed and when you wait until that has occurred it is nearly always too late to secure the best result. I hope that physicians of today will realize this and give such children the chance that they deserve.

MANAGEMENT OF GASTRIC AND DUODENAL ULCERS, WITH SPECIAL REFERENCE TO ACUTE PERFORATED ULCERS OPERATED UPON UNDER LOCAL AND PITKIN'S SPINAL ANESTHESIA

William Reid Morrison, M.D., F.A.C.S.,

Assistant Professor of Surgery, Boston University School of Medicine; Assistant Visiting Surgeon, Boston City Hospital, Boston, Mass.

Modern surgeons and internists have taken a greater interest than ever before in ulcers of the stomach and duodenum, and are agreed on the general principles of sound treatment. Practically everyone treats acute peptic ulcers medically, with excellent results; the only exception being cases involving repeated massive hemorrhages from the stomach, and perforation of the ulcer. Chronic peptic ulcers, with 50% or more gastric residue after 24 hours, due to pyloric obstruction, are usually turned over promptly to the surgeon. Many internists consider that if 1/3 of the barium is retained in the stomach surgical intervention is necessary. The social position of the patient often requires early intervention; a working man supporting a family cannot afford the prolonged medical treatment required when there is less than 33 1/3% gastric retention and persistent symptoms of ulcer. Such a patient may have no symptoms while resting in bed, or while on diet, yet when he attempts return to work symptoms promptly recur. On the other hand, people of means, not of the laboring class, with the same degree of obstruction at the pylorus, may, and often do, get along very well on a prescribed diet.

In dealing with chronic peptic ulcers, the surgeon looks with suspicion on the gastric as being potentially more malignant than duodenal ulcers. Either gastric or duodenal ulcers may suddenly perforate, and this type of case I shall discuss in this paper.

Last year I was afforded the opportunity of operating on all cases of perforated ulcers of the stomach and duodenum admitted to the Boston City Hospital during 5 surgical services. With this special assignment, I now have operated on a series of 50 consecutive cases; having 1200 beds at present, an average of 35 perforated peptic ulcers are admitted to our surgical clinic each year. All of these hospital cases have been among men. I have in private practice operated on 1 woman with perforation at the pylorus. I know of no reason why women should be exempt from perforation, for women not infrequently suffer from acute or chronic ulcers.

Perforation may happen at any time of the day or night, during work, sleep, while at meals, after drinking a barium meal, or particularly after taking alcoholic beverages. In ¾ of the acute perforations I have seen, the symptoms have been fairly constant: very severe pain and tenderness in the epigastric region, of sudden onset; with or without obliteration of liver dullness; associated with board-like abdominal splinting, usually nausea and vomiting; symptoms of shock at first.

So far as I know, I was the first surgeon at our hospital to prove the diagnosis by noting air between the liver and diaphragm, the patient standing upright, with the aid of

the fluoroscope and Roentgen ray films. Absence of air does not rule out the presence of perforation, especially if the perforation is walled off. The majority of our early cases have a low pulse after recovering from the initial shock of perforation. X-ray examination is not made in a late case with high pulse, advanced age, or poor general condition. Since 25% of my patients did not have characteristic symptoms and were admitted as appendicitis, cholecystitis, pancreatitis, peritonitis, lead poisoning, alcoholic gastritis, or intestinal obstruction, fluoroscopic and x-ray pictures, when positive, were invaluable in these atypical cases.

If the patient's blood pressure is below 100 mm.Hg and the pulse is above 140, is it worth while to operate? In such cases the patient will die anyway, if operation is not attempted. I think that if the blood pressure can be raised above 100, using normal salt solution, glucose, or blood transfusion, and even with the pulse 140, operation should be attempted, preferably under local anesthesia, using up to 500 c.c. of 0.5% solution novocain. Recently, I have used Pitkin's spinal anesthesia in the good or fair risks, and have found it to be satisfactory if properly given; anesthesia is immediate, and relaxation is complete, with absence of all pain. One ampule of Pitkin's spinocain usually gives anesthesia lasting 45 minutes, and 1¼ or 1½ ampoules afford usually 1½ to 2 hours of perfect anesthesia in an adult of average weight.

Evidently, inoperable cases should not be disturbed unless successful attempts are made to improve the operative risk. Three such late cases with pulse of 160-180, and systolic blood pressure of 50-80, having general peritonitis, were recently admitted, and operation was not considered because the patient's general condition could not be bettered.

Acute perforations of the stomach and duodenum may become subacute through being surrounded by adhesions; or no localization takes place, with resulting general peritonitis. If the localized perforation ruptures into a viscus, a chronic lesion is found. None of the cases of my series were in the chronic group; all were single perforations, but multiple perforations may occur and the surgeon should be on the look-out for more than one perforation. In subacute localized cases, the surgeon may have only the history as a guide in determining whether operation shall be performed. I have found 3 such cases very misleading; the patient usually has recovered from the shock of perforation, and physical examination may be practically negative. Rupture of an inflamed gall-bladder or appendix, especially a high appendix, may cause exactly the same symptoms as a perforated peptic ulcer. Acute pancreatitis usually exhibits a higher pulse rate. Alcoholic gastritis, known as a "rum belly", with its marked general abdominal spasm simulates perforation.

At first, I used ether or gas-oxygen for anesthesia; later, made use of local injections of novocain, with morphin and scopolamin; subsequently, I injected solutions of novocain in ampule form intraspinally; later in crystal form; but I now use Pitkin's spinocain which is more readily controllable in good or fair risks. Poor risks require local and should not be given spinal anesthesia. At the last meeting of the American College of Surgeons, in Boston, Dr. George P. Pitkin, at my request, personally demonstrated his spinocain anesthesia most successfully on some of our patients at the Boston City Hospital. Since spinocain is an alcoholic solution and is of lighter specific gravity than the cerebrospinal fluid, the patient's head must be kept down, and under no consideration should spinocain be injected with the patient sitting up, as fatalities are then to be expected. It is preferable that an expert anesthetist shall give spinal anesthetics and watch the patient carefully afterward. If the surgeon injects the solution, the patient must be observed carefully by another doctor, noting blood pressure and respiration particularly.

I am now making a transverse incision in the upper abdomen because it is more satisfactory than the vertical. The latter is used if diagnosis is doubtful, so that the incision may be enlarged upward for exposure of the stomach or downward for an appendix.

It has been my custom to take a culture from the free peritoneal cavity, and many

early cases show sterile cultures; evidence that a chemical peritonitis is usually present at first and that drainage of the abdomen is not then necessary.

In this series of cases the site of perforation has been at or near the pylorus, and usually on the anterior surface. Ordinarily, the perforation is the diameter of a slate pencil; some are of pin-point size; others large enough to insert the tip of the index finger. The opening may be temporarily filled by omentum, fibrin, food, liver, gall-bladder, or intestines.

I have in 5 cases removed a part of the side wall of the perforation, including serosa and mucosa particularly, for pathologic study; to find out whether the ulcer was gastric or duodenal, when anatomic landmarks were obliterated and exact site of the ulcer was doubtful. In 5 other recent perforations, when condition of the patient warranted it, I have excised the whole ulcer if without a large area of surrounding induration. This procedure has permitted me to inspect and palpate the mucosa of the stomach and duodenum for other ulcers, and the site of perforation is then exactly located.

Pathologic examination of these excised perforations by Dr. F. B. Mallory, has proved them to be duodenal ulcers and of chronic type. I have found that the area of surrounding infiltration about the perforation varies from the size of a quarter to that of a silver dollar. The anatomic landmarks, such as the pyloric vein or the pylorus itself, are often obscured or obliterated by large areas of induration in the pyloric region. The surgeon then cannot be sure whether the perforation is gastric or duodenal unless the perforation is excised or a section of the side wall removed for microscopic examination. Also, the presence or absence of carcinoma may then be established.

It is futile to attempt suturing through the surrounding indurated tissues, for the suture either cuts through this porky area or does not bring together the sides of the perforation. I usually suture the perforation laterally, approximating the stomach and duodenum with interrupted mattress No. 1 gastro-intestinal catgut sutures on a curved needle. If the great omentum is present, it is sewed with catgut over the line of sutures. Posterior gastro-enterostomy is then performed if the ulcer is at or near the pylorus; if the pulse is under 120, and the general condition warrants. I am now making a vertical opening in the stomach, parallel to and in line with the vertical part of the lesser curvature. If I cannot make a vertical opening, an oblique or transverse incision is made. I have tried each type of incision and the end result appears to be the same, provided the stoma is 2-3 in. long.

As a rule, I do not drain the abdomen if the perforation is less than 8 hr. old, provided there is not pus present; otherwise a cigarette wick may drain the pelvis through a suprapubic opening. The stomach contents adjacent to the wound are removed, but I make no effort to irrigate the peritoneal cavity or to aspirate stomach contents from the pelvis, as I believe that this procedure entails unnecessary trauma to the intestines. The peritoneum in the pelvis usually absorbs the stomach contents anyway. Drainage through the abdominal wound is, in my opinion, not desirable, for it may interfere with holding the catgut sutures about the site of perforation, and breaking down of the wound, with evisceration, is invited.

Following closure of the peritoneum with continuous catgut suture, any stomach contents in or about the abdominal incision are washed out with warm salt solution, so that healing is not impaired. Insertion of interrupted mattress catgut No. 2 sutures, in the fascia, and double figure of 8 silkworm gut sutures to fascia and skin, constitute the best method of abdominal closure. In early cases, these wounds usually heal by first intention, whereas in late cases semiseptic wounds often result; therefore, sutures should not be removed in less than 2 weeks, to avoid parting of the wound or evisceration. It is very important to support the abdominal sutures with a scultetus bandage, or broad adhesive swath.

Unless spinal anesthesia has been given, the patient is placed on a head rest immediately after operation, to obviate vomiting. A

modified Sippy diet is given if the perforation has been sutured only; if, in addition, a posterior gastro-enterostomy has been performed, soft solids are given on the second or third day after operation, and subsequently a meat-free diet after a week; such a case may vomit persistently on a fluid diet only. After operation these patients sometimes vomit fresh or changed blood, especially if they have been moved. The bleeding may come from the perforation area, from another ulcer, from the gastro-enterostomy wound, or, rarely, from an intussusception through the stoma. In my experience, the best postoperative treatment for hemorrhage consists in giving morphin ½ gr. subcutaneously, and subpectoral injections of normal salt solution. This procedure is preferable to blood transfusion, intravenous salt solution, or glucose solution in large amounts, as the latter suddenly raises the blood pressure, displaces clots and possibly causes fresh hemorrhage. The stomach may be washed out with hot salt solution containing adrenalin. If the bleeding persists, prompt reopening of the abdomen is required, doing a blood transfusion at the same time and using whole rather than citrated blood. If intussusception of the jejunum through the stoma is suspected, the patient's life may be saved by prompt operation. I have had one death from this cause, 8 months after doing a posterior gastro-enterostomy. This patient was in the hands of medical men who did not consider the case a surgical one, and at autopsy the strangulated intestine from which the bleeding occurred was found invaginated into the stomach. I have found 25 such cases recorded in the literature.

During convalescence, at least 2 weeks after operation, a barium x-ray examination of the stomach is made, and repeated every 3 months if possible to demonstrate patency of the pylorus or of stoma. Any focus of infection in teeth, tonsils, sinuses, or elsewhere is looked for, and the patient's weight is taken at intervals. I recommend a meat-free diet, with crackers and milk between meals; alcoholic beverages, condiments, fried food, and indigestible things are forbidden. Many of these patients eat or drink whatever they want, despite advice.

There is still considerable difference of opinion as to the merits of posterior gastro-enterostomy. The most experienced surgeons tend to favor it in addition to suture. I find that if the perforation is at or near the pylorus, the pulse under 120, and general condition of the patient allows, it is preferable to do a posterior gastro-enterostomy. There is little or no shock from the extra operative work, convalescence is better, and secondary operation later is usually not needed.

I believe that if the general surgeon operates upon only 1 or 2 perforated ulcers a year, it is preferable for all concerned to suture the ulcer only and close the abdomen, with or without drainage as indicated. Certain European surgeons advocate partial gastrectomy for perforated peptic ulcers; in my opinion such radical surgery should be performed only if the simpler operative procedures fail.

In my series of 50 consecutive cases, 41 patients recovered, and 9 died, a mortality of 18%. Eight died following suture of the ulcer only. The abdomen was drained in 5 of these fatal cases; the rest were not drained. Two of these patients died of pneumonia; 2 were men of advanced age, with chronic cardiac disease, who died on the seventh and tenth day after operation; 2 died of evisceration on the tenth and twelfth days following operation, and 1 of these had a gastro-enterostomy performed. There were 33 posterior gastro-enterostomies with 1 fatality on the tenth day following evisceration caused by too early removal of sutures. The perforation was sutured only in 17 cases, many of these being poor operative risks. The abdomen was sutured without drainage in 29 cases, with recovery, thus refuting the often repeated statement of some surgeons that this procedure is fatal. Twenty-one patients recovered with drainage of the abdomen; most of these being my earlier cases.

The ages of these patients varied from 23 to 72 years. I have recently seen a perforation in a boy of 19. The interval between perforation and operation varied from 3 to 24 hours. I have seen 25 of these patients recently; practically all of them have gained in weight, have few or no complaints, and are at their regular work.

SURGICAL DENTISTRY

A. F. Gorham, D.D.S.,
Camden, N. J.

From an oral surgeon's standpoint, we are most interested in the dental-alveolar abscess because we come in contact with it more frequently than any other type of infection. This is an abscess occurring at the root of the tooth and resulting from an infection following death of the pulp.

In the acute abscess, the symptoms are nearly always unmistakable; the tooth is sore on percussion, pain is severe, and pus escapes into the tissues. Pus will point and burrow in the direction of least resistance, and after eating its way through the bone may take an unexpected course. Frequently, abscesses in the maxilla will point into the antrum, and sometimes through the tuberosity into the pharynx. In the mandible, a fistula may be seen under the chin, in the angle of the jaw, in the neck, or even down to the clavicle. Reliance upon hot applications to this particular type of infection has been responsible for many unsightly facial scars. There seems to be undue hesitancy on the part of physicians and dentists as to surgical procedure with this type of infection. It has been my experience that incision at the most pendulous portion of the abscess, extraction of the tooth, irrigation through the incision into the tooth socket, insertion of a small rubber-dam drain through the wound, application of an ice-bag, administration of a purgative and 5 gr. pyramidon, is the quickest and safest way to clear up such an infection.

Under no circumstances should the tooth socket be curetted after removal of the acute abscess. Failure to bear this fact in mind has sometimes resulted in startling complications; thrombosis of the cavernous sinus or an acute upper respiratory tract infection may result.

Local anesthetics are to be avoided. Nerve-block often fails to anesthetize thoroughly, and the infiltration method is to be condemned because of the danger of infecting deeper structures. Consequently, general anesthesia is usually best.

We should be able to diagnose and differentiate the acute dental-alveolar abscess from other swellings which are found in and around neighboring oral tissues. A great many of us seem to think that all pain in and about these tissues can be traced to the teeth. We must bear in mind that all swellings are not acute abscesses, and the diagnostic value of x-rays should never be overlooked or under-estimated. Inability to properly diagnose cases before intervening surgically has been responsible for the wholesale loss of perfectly sound teeth in attempts to alleviate pain.

I recall a patient sent into the hospital with diagnosis of an "acute abscess in the mandibular right second molar", who gave a history of periodic swelling of 3 years duration. On admission, he had marked trismus of the muscles of mastication, swelling about the second molar and angle of the jaw, pain, and temperature 101°. The second molar was responsive to percussion but x-rays showed an impacted third molar, and a multilocular dentigerous cyst involving the second molar and a portion of the ramus. I recall another case in which the patient had all his mandibular teeth on the left side removed in order to clear up a supposedly acute abscess. Upon admission, this patient showed marked swelling about the angle of the jaw and a slight temperature. He had noticed the swelling to be more marked around meal time, which is usually an indication of some obstruction in the salivary glands. Roentgenogram showed a salivary calculus lodged in the submaxillary duct. This calculus was removed and the patient had an uneventful recovery.

Frequently, in children, adenitis is confused with an acute alveolar abscess. However, I believe that no damage is done in the extraction of diseased temporary teeth. Infected temporary teeth and tonsils, in the majority of cases, are responsible for the so-called "swollen glands" so frequently found in children. After removal of such teeth there is usually no recurrence of the adenitis.

In Vincent's infection, we frequently find swellings about the submaxillary glands, with

subsequent loosening of the mandibular molar teeth. The gums are brick red in color, the breath has a peculiarly fetid odor, and a greyish membrane appears around the gum margins. The proper treatment is neo-arsphenanim, the dry powder, packed beneath the margin of the gums.

Infections of the maxillary antrum frequently have their origin in dental foci. We must consider the anatomic relation of teeth to antrum and bear in mind that any roots of teeth from the maxillary canine to and including the third molar may penetrate the antral floor. On the other hand, there are many maxillary antrum infections in which a number of teeth are sensitive and give rise to dental symptoms, even though there is no pathology of the teeth involved. Here again, we must bear in mind this anatomic relation, and especially the distribution of the superior dental nerves, which pass through the lateral wall of the antrum.

Chronic abscesses, or your so-called granuloma, are responsible for a great many secondary systemic diseases, but the only real proof is that the patient's secondary symptoms subside after the primary focus has been properly removed. In the elimination of infection at the tooth apex, extraction and curettement are indicated, and quite frequently the removal of diseased bone is a necessary further procedure. Failure to do this is responsible for the poor results following a great many extractions. The so-called chronic abscess is, in reality, the origin of the radicular cyst which is associated with nonvital teeth, and which if neglected may cause a great deal of bone destruction. The dentigerous cyst is associated with impacted or supernumerary teeth, and should be removed as early as possible. The multilocular cyst is composed of a number of small cysts or compartments, and is generally benign, but some claim that they may undergo malignant transformation.

Fractures of the maxilla are rare in comparison with those of the mandible. However, they do occur in the extraction of teeth, and in automobile and industrial accidents. The malar bones and zygomatic process may be fractured without a great deal of injury to neighboring bone structures. In fractures of the maxilla, except in very rare cases, intermaxillary wiring should not be used. The mandible must not be utilized in any appliance when there is complete separation between the maxilla and other bones of the face, because the action of the mandible will have a tendency to displace. Here we use a plaster of Paris head-cap, in which 2 buckles have been placed on either side over the temples; a metal splint is made with wings to be cemented to the upper teeth; 2 large elastic bands are buckled to the plaster cap, attached to these wings and, with upward pressure, the fracture is gradually reduced.

Fractures of the mandible are more common and are, as a rule, multiple and intraorally compound. The amount of displacement depends upon the portion fractured, the most vulnerable parts being the canine area and at the angle. While violence may have produced the displacement, the latter is nearly always maintained by muscular action, and in fixation of such fractures the action of these muscles must be borne in mind. In fractures of the ramus and at the symphsis there is usually no displacement, but in a fractured coronoid process the fragment may be drawn upward and backward by the temporal muscle. Fractures of the mandible have the symptoms common to most fractured bones; crepitus, inability to articulate the teeth, pain, and swelling. In the fixation of mandibular fractures, wiring and interdental splints are used, wiring being the better form of fixation. The fracture may be reduced at once and no impression is necessary, as in making dental splints. The occlusion can always be observed, the wires adjusted from time to time, and a spray can be used to cleanse the interdental spaces. As repair of the fracture progresses, it is advisable to permit slight motion, and this can be done with this type of immobilization. With the old dental splint, any complication necessitated its removal. All fractured roots, and all teeth in the line of fracture, should be removed. Spicules of bone should be removed. Where we have infection, an external incision affording drainage is advisable.

THE PRESENT STATUS OF TUBERCULOSIS VACCINATION IN INFANCY

Joseph H. Marcus, M.D.,
Atlantic City, N. J.

Attending Pediatrist to the Atlantic City Hospital, Betty Bacharach Home, Baby Clinic, Etc.

The antituberculosis vaccine of Calmette, known as BCG, consists of a strain of bovine tubercle bacilli, originally virulent, which through long cultivation on bile-containing medium has lost its pathogenicity for animal and man. According to the original statement of Calmette, advocated for some time, this organism should be nonvirulent and should lack the power to produce any specific changes. Injected into, or ingested by, laboratory animals, BCG should be absorbed and carried to the regional lymphatic glands, where it should enter into a symbiosis with the cells and produce no demonstrable tissue reaction.

According to data obtained from children vaccinated by Weill-Halle and Turpin, in 1921-22, and who have since lived in a tuberculous environment, it appears that the immunity persists to the fifth year, at least; that is, during that period of life in which the child is particularly exposed and susceptible to serious infection.

The method of vaccinating the newly born with Calmette-Guerin bacilli consists in effecting, as soon as possible after birth, impregnation of the lymphatic organs with a special strain of Koch bacilli constituting an attenuated vaccine. In other words, living bacilli are used which are cultivable in indefinite series, in appropriate artificial media, without losing or modifying their hereditary characteristics. This impregnation of the lymphatic organs is best accomplished by causing the newly born child to absorb by oral administration, 3 doses within 48 hours, a suitable quantity of freshly prepared microbic emulsion containing the greatest number possible of living bacillary elements. Absorption takes place very rapidly during the first 10 days after birth, since during this early period of life the intestine of the infant is lined with protoplasmic cells with great phagocytic power. These cells, gorged with microbes, pass into the lymphatic circulation, spleen and bone-marrow, and carry to these without digesting them vaccine bacilli which are for them inoffensive parasites, but productive of antigen substances whose continuous secretion determines the elaboration of defensive substances.

Bessau reported the inoculation of 140,000 children by the Calmette method, without a single disagreeable reaction. Yet, a certain number of the patients died after a time, and even though it seems very probable that the deaths were due to infection from tuberculous individuals, no definite proof has as yet been offered to show that the Calmette bacillus cannot, under certain circumstances, cause illness and death. Until such proof is furnished, the Calmette method cannot be termed entirely harmless.

At a meeting held a few months ago, a committee considered the present status of work on vaccination against tuberculosis, with the Bacillus Calmette-Guerin, and especially the application of this method of vaccination to the general public, by the Chicago Municipal Tuberculosis Sanitarium where this organism has been studied by animal experimentation for about one year. The conclusions were to the effect that the Bacillus Calmette-Guerin does not tend to stability, so far as its virulence is concerned, some strains becoming virulent to the extent that animals die as the result of inoculation, and that results reported thus far from use of oral inoculations do not seem to be conclusive evidence that protection can be secured. The committee was of the opinion that the method must be regarded as still in the experimental stage, and therefore not suitable at this time for widespread application to human beings, either through oral administration or into the tissues directly. It seems proper, the committee reports, since years are required to determine the value of a process of this type, to await the results of use of this vaccine in other communities where it has been on trial a number of years, and to continue at the Chicago Municipal Tuberculosis Sanitarium only animal experi-

mentation and carefully supervised limited human inoculations.

At a recent meeting of the New York Academy of Medicine, Section on Pediatrics, Dr. Wm. H. Park reported the results of feeding or injecting animals with the BCG vaccine. His experimentation on animals indicated that the vaccine is harmless but that so far as the taking of vaccine by mouth is concerned there is no definite proof that sufficient bacilli are absorbed to give a definite immunity to animals against a subcutaneous injection.

His observations were made in connection with Dr. King at the Mt. MacGregor Sanatorium of the Metropolitan Life Insurance Company. An interesting case reported was that of a calf which after subcutaneous inoculations with BCG developed a positive tuberculin test. Later the reaction became less marked and finally disappeared. After a year the calf was put into a herd in which there were open cases of tuberculosis. The animal finally developed a positive tuberculin reaction and when killed showed several well marked lesions of tuberculosis. This experience corroborates Calmette's observation that immunity would not last much more than a year. The appearance of the first tuberculin reaction with its later disappearance suggests that immunity developed and disappeared with the reaction. At this same meeting, Dr. Camille Kereszturi discussed BCG vaccination in New York City, in which oral administration was used in approximately 140 infants of whom 33 were over 1 yr. of age, the oldest being 20 months. He stated that the tuberculosis situation here differs from that in Europe, because foci of infection are not so widespread, social conditions are better, and general intelligence higher. His observations and follow-up work were as accurate as possible under the circumstances. All these infants vaccinated, and the infants used for control, were from families with tuberculosis. Not all of these infants were actually exposed, because in some instances the persons with tuberculosis had died before exposure was possible or had been removed from the home. In particular, his results showed that 24% of the infants inoculated with BCG had a positive reaction to the tuberculin test within the first year. The usual change by Roentgen examination is enlarged shadow of the hilum, but this is indefinite among young infants. Roentgenographic interpretation showing changes in the lung has bad prognostic significance; blood counts after vaccination were not reliable because of the great physiologic variation of blood pictures in new-born infants. Great numbers of BCG were found in the stools from 8 to 31 hours after vaccination. Dr. Kereszturi was very optimistic about his results, stating that the mortality decreased from 8 to 1.6%; but whether this was due to the vaccination or to a coincidence is a matter of conjecture. The only control will be carefully compiled mortality statistics, as Calmette does not believe that hypersensitiveness and immunity parallel each other. In closing the discussion he stated that the subcutaneous method would be the final solution but before changing to this method it is advisable that it be proved not only a better procedure but also harmless. All the evidence suggests that the oral method is less effective than the subcutaneous. Dr. Charles Hendee Smith, Dr. Roland G. Freeman, and Dr. Bela Schick all felt that there has not been sufficient follow-up work to arrive at definite conclusions, but agreed that everything should be done to protect and, in a rational manner, to immunize babies in tuberculous families.

We know that if we can separate the non-infected infant from its consumptive parent we can protect it from tuberculosis. Can we make this claim for antituberculosis vaccination? I feel that we can give the child an increased resistance by an inoculation of living bacilli that will call forth allergy. It is said that up to the present time no vaccinated child has developed tuberculous disease after having been exposed in its home.

In Memoriam

ELLIOTT, David, member of an old Newark family and a former county physician of Essex County, died June 6, at Newark Memorial Hospital. He had been ill several weeks. Death was due to a complication of diseases. He was in his seventy-third year.

Dr. Elliott was a son of the late Dr. James and Mary Hall Elliott, who came to this country from Ireland and settled in Belleville in 1822, and who held the distinction of being the first Catholic Church pew holder in New Jersey. He bid in at auction the first pew in St. John's Roman Catholic Church in Mulberry Street.

Dr. "Dan", as he was known to his intimates, was educated in Newark and Canada. He took his degree of M.D. at Columbia. For many years he had offices with his father. The Elliott homestead was at the southwest corner of Halsey and New Streets. Dr. "Dan" married Miss Jane Shanley, a sister of the late Bernard M. and John F. Shanley. She died in 1911.

BLUM, Karl A., of 58 North Essex Avenue, Orange, whose office was at 604 Central Avenue, East Orange, died June 15 at his home after an illness of 3 weeks.

Dr. Blum was born in Baltimore and went to Orange at an early age. He was a graduate of Orange High School and the College of Physicians and Surgeons of Columbia University. He took a preliminary course in medicine at Dartmouth College. After completing his internship at Brooklyn City Hospital, Dr. Blum practiced medicine in Little Falls, N. Y., several years before establishing offices in East Orange, where he specialized in eye, ear, nose and throat diseases.

Dr. Blum was a member of the Staff of Orange Memorial Hospital and a member of Kappa Sigma Fraternity. He leaves a widow, Mrs. Alice Bingham Blum, and 3 step-children, the Misses Alice and Thelma Bingham and Thomas Bingham, all of Orange. He was a son of the late A. W. Blum, for many years an optician in Orange.

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE:

CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

DO YOU CARRY ACCIDENT INSURANCE?

For the past 2 years the state society has been offering group health and accident insurance, as well as group indemnity policies, to protect members against malpractice suits. The last mentioned form of insurance has proved so satisfactory that the special committee appointed to investigate other forms of personal protection decided to recommend special group insurance for health, accident and automobile risks. At the recent annual meeting, Dr. Pinneo reported a very satisfactory subscription to the health and accident policies, 345 members having taken such insurance, and 54 claims having been paid—to the total amount of $8123.

Every member of the profession ought, unquestionably, to carry a protective indemnity policy to cover possible emergencies in the course of practice, and our members are especially favored by the "group policy" available through their organization. It is even more important now than heretofore, since the House of Delegates, on June 14, repealed the old provision whereby the state society allowed its members as much as $250, if necessary, to meet legal expenses of a suit. It now becomes incumbent upon each individual member to insure himself, but the state society group policy is the cheapest and best means of procuring safe and adequate protection.

In the matter of health and accident insurance, again the society has been able to secure far better terms than can the individual member acting independently; rates are lower and protection is greater. We urge you to prompt consideration of these questions, and strongly advise consulting Dr. Pinneo, Chairman of the Committee on Health and Accident Insurance, or Mr. John E. Denner, 356 Bloomfield Avenue, Montclair, his agent, regarding terms upon which such insurance may be obtained.

A recent personal experience of the Editor, with old line accident insurance, may interest you. For fully 40 years he has carried an accident policy with the Aetna Life Insurance Company. Premiums have been regularly paid all those years and no claims made for accidents. In May he received notice that the annual premium would be due on a certain date but that the amount would be nearly double that previously paid *because he had passed 61 years of age.*

We knew from observation while engaged in general practice that health policies were often terminated in that way, but such treatment of accident insurance was to us unknown. It seems to be a recently adopted plan. The individual has no redress. It is a game as tricky as the "shell and pea" game of the County Fair.

Out of this personal experience grows our advice: If you are now carrying an independent policy of accident insurance, cancel it yourself and take part in the group policy where the insurance company cannot so easily throw you over.

Special Article

TESTIMONIAL DINNER TO DR. EUGENE WAY

Dr. Eugene Way

On the evening of May 23, 1929, the many friends of Dr. Eugene Way, of Dennisville, Cape May County, tendered him a testimonial dinner in recognition of fifty years engaged in the practice of medicine. The dinner was held at the Ocean City Golf Club, at Somers Point, and was largely attended by the physicians of Cape May County and by distinguished friends from other parts of the country, among whom were: Dr. J. W. Ellenberger, of Harrisburg, Penna.; Dr. William J. Middleton, of Steelton, Penna.; Dr. A. Schatle, of Bethlehem, Penna.; Rev. S. B. Hiley, of Summit, N. J.; Mr. E. F. Jefferson, of Lakeville, Connecticut.

Dr. Herschel Pettit, President of the Cape May County Medical Society, delivered the address of welcome, and Dr. Aldrich Crowe, of Ocean City, acted as toastmaster.

Monsignor A. Pozzi, Rector of St. Joseph's Church, Sea Isle City, delivered the invocation and, later spoke in terms of the highest praise of Dr. Way's work among his parishioners. Dr. William E. Darnall, representing the Atlantic County Medical Society; Dr. James Hunter, representing the Gloucester County Medical Society; and Mr. William A. Haffert, President of the Cape May County Chamber of Commerce and Past President of the Sea Isle City Rotary Club; all delivered interesting talks relating to the remarkable services rendered to the people of Southern Jersey by this active practitioner during half a century.

Addresses were also delivered by Dr. Ephraim R. Mulford, President of the Medical Society of New Jersey; Dr. Henry O. Reik, Editor of the New Jersey Medical Journal; and Dr. Walt P. Conaway, who, at the conclusion of his remarks, speaking for all of the guests, presented Dr. Way with a very handsome traveling bag. The remarks of the last 3 speakers follow:

Dr. Mulford: The state medical society is to be congratulated tonight in having on its roll a man who has completed fifty years of faithful service to mankind; all the more venerable in that he has never lost a day on account of personal illness. I question if this record can be duplicated.

The laity of Cape May County has been most fortunate to have had your consecrated attention and the physicians of the Cape May County Medical Society, of which you have been Secretary for 22 years and also one of its founders, have been blessed to have had your counsel and guidance and Christian example to light them on their way.

As presiding officer of the state medical society, I bring you the greetings and felicitations of our 2500 members, and assure you of our highest esteem, respect and friendship; and further, that you may be spared many more years of activity and happiness.

Dr. Reik: May I begin by saying that I felt more than pleased at being invited to this testimonial dinner, and felt very highly honored because the invitation included a request to take part in the proceedings and, particularly, because that request was accompanied by a statement that the Guest of the evening had expressed a fondness for the Editor of your Journal. You can readily understand that I was proud of that remark and very happy to learn that I had won the esteem of one whose approval is so well worth having. It is an expression of friendship that I shall appreciate always, and I need scarcely tell Dr. Way or any of you that his friendly feeling is fully reciprocated, that the fondness is mutual, that the bond of sympathy between us, so evident even upon our first meeting, is steadily growing stronger. Upon my first appearance at the Cape May County Medical Society I was greeted by that charming smile with which you are all familiar, and by a handshake that conveyed something more than

a formal welcome. We understand each other instinctively.

The topic allotted to me is—the compensations of age; a fitting topic because the guest and I have travelled through nearly the same period of time, enjoying life as we journeyed, and have arrived at points from which we can view the long course covered and measure the rewards of work and play. Both of us have seen more of work than of play, but perhaps that has been because each got more of pleasure out of work. There is no compensation of play equal to the compensation from work satisfactorily performed, and there is a tremendous compensation derivable from looking backward upon completed tasks.

If use of the word "age" in this connection seems to intimate that our Guest is growing old, let me disabuse your minds of that idea. One of my favorite poets has always been that distinguished member of our own profession—Oliver Wendell Holmes—and I take great delight in finding myself in harmony generally with his verses, but I find that our Guest disproves one of those poems that I had considered almost perfect. In the famous "One Horse Shay", Dr. Holmes said:

Little of all we value here
Wakes on the morn of its hundredth year
Without both feeling and looking queer.
In fact, there's nothing that keeps its youth,
So far as I know, but a tree and truth.

The great poet had not the privilege of knowing Eugene Way. Without reference to his years, my own entitle me to speak on the topic in hand.

Age may bring a lessening of physical vigor and a disinclination to work as frantically as one does in youth; but it brings also a keener perception of what is worth doing and greater power for dealing with tasks undertaken. How much better is the judgment of the experienced man of years; how much more effective even the word of the elder man who has proved himself. Is not such increasing forcefulness, such growing power, such recognition on the part of one's friends, compensation for the slight losses attendant upon age? The ability to measure events of the day by happenings of the past, gives one not only better judgment than has the inexperienced man, but an internal joy and satisfaction that are highly compensatory. The poise, the placidity, the calm and reliant character of the individual who has lived through the storm and stress of many winters, may be incomprehensible to the energetic, ardent nature of youth, but the man who has arrived would not go back if he could; in coolness and tranquility he is compensated. Age usually develops conservatism; but the conservatism that can still be liberal while rejecting radicalism is an admirable trait, and the man who has acquired such an attitude of mind along with his increasing years is compensated for whatever he has lost of enthusiasm; and I may say in passing is more valuable as a citizen of the commonweath. Youthful energy, radicalism, the fire of fanaticism, we must have because life is ever changing, evolution must continue, and these are all useful factors in the solving of life's problems, but as each radical takes on age, especially as he takes on responsibility, he shows a tendency toward conservatism and finds his compensation in the gradual accomplishment, in whole or in part, of his ideas as time passes.

These are the compensations of age for every man who has lived a full life and properly endeavored to play his part upon the stage of human affairs. Does the ageing physician differ from other men in this respect? Yes! He differs in that his compensations are a thousand fold greater than those of men engaged in other lines of human endeavor, and I am inclined to think that the country doctor has it "all over" other physicians in this matter. He probably has not accumulated as much property or actual cash as the local banker, the merchant, or the city medical specialist, but he has a store-house full of memories that outweigh in compensatory value all "the wealth of the Indias". What amount of property possessed can equalize the joy felt through the knowledge of having saved a human life? To the physician almost alone is given the privilege of knowing that sensation. Think how many such memories must be stored up in the brain cells of a country doctor who has for 50 years fought disease in nearly every form and frequently under the most adverse circumstances. It would be difficult for even him to estimate the number of people, young and old, he had rescued temporarily from the jaws of death; and an expert accountant could not estimate the amount of actual pain, of agonizing suffering, he had saved the people of his community. To this audience I need not dilate upon the happy thrills a physician feels when he recognizes on the street some former patient to whom he had rendered good service; you have all experienced such thrills. If some of you younger men have felt such joy, just multiply such thrills by the coefficient necessary to bring your years of practice up to his term of 50, in order to understand what our Guest

is entitled to feel. He may have been paid in coin of the realm for some of that work—for the best of it he probably was not—but such compensation is as nothing compared to the thrilling sensations referred to.

A book that has given me many hours of pleasure is "Adventures in Contentment" by David Grayson. In one chapter devoted to the country doctor, he says: "I never so desired the gift of moving expression as I do at this moment, that I might give some faint idea of what a good man means to a community like ours. * * * The doctor leaves his secret mark upon the neighborhood—as all of us do, for good or for ill, upon our neighborhoods, in accordance with the strength of that character which abides within us. * * * In old neighborhoods and especially in farm neighborhoods people come to know one another—not clothes knowledge, or money knowledge— but that sort of knowledge which reaches down into the hidden springs of human character. A country community may be deceived by a stranger, but not by one of its own people. * * * And I never realized until today what a supreme triumph it is, having grown old, to merit the respect of those who know us best."

Fifty years ago just such a country doctor entered into practice in Cape May County, and you cannot walk through any portion of the county without noting evidences of his private mark, without hearing his praises sung on every hand. I shall limit my remarks to but one of his many achievements—his work in behalf of organized medicine and for the benefit of public health. When in 1879 he received his state license there was no medical society in this part of the state. Within 4 years we find him organizing, with 5 other members, a county medical society. I suspect that he was the organizer and that he became the first secretary, rather than the first president, through his innate modesty. Two years later his society had obtained a Charter from the Medical Society of New Jersey, as a component, and of the group of charter members he, J. H. Ingram and Colonel Gandy are the only surviving members. From that day until this, he has been the living spirit of progressive medicine in this region, the leader in all work of organized professional character, the one man who could always be relied upon by state and national leaders in medicine to respond to an appeal or to fight for a cause. The duties of a secretary are not light; sometimes they are extremely burdensome. Yet, here is a man who has given 46 years of secretarial work without one cent of pay to keep a county society in active coöperation with his confréres in other parts of the state and nation. I commend his example to you younger men. The work of the county society secretaries in this state is becoming more and more exacting, and that leads me to ask who among you is fit, or is fitting himself, to relieve this old soldier when the necessity therefor shall come. We sincerely hope that Eugene Way will remain the guiding spirit of this county society for many years, but it is inevitable that the Morrisons, the Reiks, and even the Ways, shall some day take a long vacation. The work will remain here with you. It is amazing where it all comes from and how it increases. With the close of nearly every month, I say smilingly to my secretary "that task is finished"; with the opening of nearly every month, I find myself confronted with a new and larger task. Which reminds me of a negro who had long promised himself a vacation, and decided to go off on a hunting trip for 2 weeks. On the morning of intended departure, with all preparations made, he started. From the doorway came a call from his wife: "Rastus, you all going huntin' fo' 2 weeks and you ain't done leff a stick of wood cut in dis here house." Ragged, perhaps, but not sufficiently to be seriously disturbed, Rastus replied: "Well, doggone, I ain't takin' de axe wiff me." Some one better learn to wield the axe.

Dr. Way, in this recognition of your many years of magnificent work, we honor ourselves. This community is proud of you. The medical profession of the State of New Jersey is proud to number you among cherished leaders. As individuals, we humbly salute you as the Nestor of Medicine of this county, as a physician who has greatly honored his profession by noble works, and we tender our respects to you as a perfect example of the old fashioned doctor and the old fashioned gentleman.

TESTIMONIAL DINNER TO DR. ANDREW F. McBRIDE

In appreciation of his valuable services to the commonwealth as Commissioner of Labor of the State of New Jersey, the medical friends of Dr. Andrew F. McBride tendered him a testimonial dinner Wednesday evening, June 12, 1929, at the Hotel Chelsea, Atlantic City.

The Committee of Arrangements consisted of: Drs. Walt P. Conaway, Atlantic City, Chairman; Lucius F. Donohoe, of Bayonne; William G. Schauffler, of Princeton; James

Hunter, Jr., of Westville; Joseph Poland, of Atlantic City; William Spickers, of Paterson; George Tracy, of Beverly; Charles B. Kelley, of Jersey City; J. Bennett Morrison, of Newark; Philip Marvel, of Atlantic City; and Henry B. Costill, of Trenton.

Among those present were:

Anderson, Richard D.
Arlitz, Wm. J.
Barkhorn, Henry C.
Becker, Leo V.
Botbyl, B. W.
Cole, Blase
Colburn, R. M.
Conaway, Walt P.
Cosgrove, Samuel A.
Costello, Wm. F.
Curry, Marcus A.
Davis, Richard A.
Dickinson, G. K.
Diverty, Henry B.
Donohoe, Lucius F.
Eagleton, Wells P.
Ely, Lancelot
English, Samuel B.
Freile, Wm.
Green, James S.
Guion, Edw.
Hagerty, John
Haggerty, D. Leo
Harvey, Edwin H.
Harvey, T. W.
Haussling, Francis R.
Hallinger, Earl S.
Hiden, J. C.
Hunter, James, Jr.
Ill, Charles
Kelley, Charles B.
Kuder, Joseph M.
Larkey, Charles
Lathrope, George
Lippincott, A. H.
Liva, Arcangelo
Londrigan, J. F.
Lucas, H. H.
MacAlister, W. W.
McCoy, John C.
McGuire, James J.
McMahon, B. C.
Marsh, E. J.
Marvel, Philip
Morrison, J. B.
Morrill, James P.
Morrow, Joseph R.
Mulford, E. R.
Nevin, John
North, Harry
Pinneo, Frank
Pollak, B. S.
Quigley, F. J.
Quinn, Stephen T.
Reddan, Martin W.
Reich, Albert
Remer, Daniel
Ramsey, Wm. E.
Reik, Henry O.
Ryan, John N.
Scanlan, D. W.
Schauffler, W. G.
Schlicter, Charles H.
Schultz, A. M.
Seely, Roy
Sexsmith, George H.
Sherman, Elbert S.
Sommer, G. N. J.
Spicker, Wm.
Stahl, Alfred
Stewart, W. Blair
Todd, Francis H.
Tracy, George
Trippe, C. M.
Tuers, George E.
Ulmer, Chester I.
Way, Clarence W.
Westcott, Wm.
Wilson, Norton L.
Woodruff, S. R.
Weeks, Charles H.

Dr. George Lathrope acted as Toastmaster and filled that difficult position with characteristic skill and finesse.

Dr. Francis H. Todd, of Paterson, responded to the toast "Dr. McBride as a citizen and a public officer". Dr. Schauffler spoke of the guest as a "classmate and a fellow practitioner". Dr. James S. Green spoke of his association with Dr. McBride "in army service". Dr. Ephraim R. Mulford, President of the Medical Society of New Jersey, was assigned the text "McBride's Service to the Medical Profession".

Following these addresses, Drs. Morrison, Reik and Conaway spoke of Dr. McBride's work as Commissioner of Labor and as Chairman of the Welfare Committee of the State Medical Society:

Dr. Morrison: I assure you it is an honor and a privilege to be requested to say a few words tonight relative to the great work Dr. Andrew F. McBride has performed and is still performing, as Chairman of our Welfare Committee, for the Medical Society of New Jersey. For over 10 years I have watched his devotion to this task. The time passes so rapidly that even what happened 7 or 8 years ago seems to be ancient history.

But in those days when we legislated the old Committee on Legislation out of office and Dr. Wells P. Eagleton was performing such herculean work attempting to stem the tide on which the cults were riding, demanding legislative recognition for an entirely new science and almost overwhelming the medical profession, Dr. McBride was his most able lieutenant. We were compelled that year to introduce an amendment to our Medical Practice Act providing for "Limited Licenses", or go down in defeat.

While many of us have never favored limited license and it has not proved an unmixed remedy, yet it probably saved New Jersey from having launched on our public a thousand licensed members of the cults over whom we would have had no control.

I recall one night in particular. Dr. Eagleton, then our Chairman of the Welfare Committee and an able leader in those early years of our struggle to maintain Medical Standards, called a meeting of the committee at Trenton. It was mid-winter, had snowed hard all day and by evening there was a fall of 3 feet of snow. Dr. McBride plowed his way through that storm to Newark, left his auto and took a train to Trenton. We left there about midnight and returned to Newark. McBride then worked his way back to Paterson through almost impassable roads while many of the younger members of the committee were ensconced before their grate fires complacently excusing their absence on account of the inclement weather.

It is in just such emergencies as this that the chief characteristics of our guest shine out. Given a battle to fight, a cause to defend, an obstacle to be overcome, his caveman qualities are called into action, and nothing prevents him from attaining his desired accomplishments.

This side of his character, which enabled him to make a real modern city out of the old Paterson will, I believe, be dwelt upon by another speaker.

In the fight to repeal the Chiropractic Act a year later, Dr. McBride was the chief advisor and assistant of Dr. Eagleton. A short

time after this we elected him to the position of Chairman of our committee, and since then he has been an inspiration to us all. What is it that makes 30, 32, 35 members out of a total of 35 travel to Trenton from all over New Jersey to respond to a call from Dr. McBride for a meeting of the Welfare Committee? First it is because that the committee is infrequently assembled and we know that only necessity for consideration and action has made the call. We respond to show our determination to be loyal to our leader. His earnestness, his devotion to duty, his keen analysis of every legislative measure, purely from its possible effect on the public, his charming personality and his extreme modesty have endeared him to us all.

Any one of us would go through great trials and tribulations, Paterson or deep water, for McBride.

He has revolutionized our methods of dealing with the legislature. Time and again he has told us that he would resign from the office of our leader rather than do any lobbying at Trenton, nor would he countenance it by others under his responsibility. He inaugurated the more effectual and more dignified method of dealing with these representatives at their homes and offices, where in quiet conference the merits or demerits of bills under consideration might be discussed at length. He so inspired us all that we went home from these committee meetings determined that in every county in the state this plan should be followed. None of the legislators has been annoyed by a doctor pulling at his coat tails or shadowing him in the corridors of the State House on the evening when a bill was up on third reading and the representative had fully made up his mind as to his course of action. Following up this plan, Dr. McBride had the Secretary of the Committee, Dr. Reik, write personal letters to these representatives analyzing each bill introduced purely from the view point of the public. The legislators have come to look for these letters in reference to all bills dealing with the healing art. They remark on the absolute fairness exhibited, their freedom from bias. We find these letters appended to the copies of the bills in the files on the desks of our representatives at the State House.

Even in the public hearings we are no longer spoken of as a medical trust acting for the doctors only. Bills have been stripped of their camouflage, the meat extracted from verbose passages and the burden of proof thrown on our opponents to prove that they measure up to the standards set by the state.

So successful was the Welfare Committee under Dr. McBride's leadership in dealing with legislation at Trenton this year that not a single bill introduced by the cults was reported out of committee. This was something that had not occurred before in 10 years.

Many other matters of grave importance to our profession are considered by the Welfare Committee and in all the conclusions reached and action instituted the guiding hand of Dr. McBride is seen. The State of New Jersey owes him a deep debt of gratitude for his accomplishments through our Welfare Committee. Upon this occasion of his selection as the President of our Society for the ensuing year, the members of his old committee extend to him our felicitations.

Dr. Reik: I very much regret that I have not the ability to respond to this toast in the way that I conceive it should be done. My association with Dr. McBride in the work of the Welfare Committee during the past 4 winters has been such as to preclude the possibility of doing justice to a report of his interest and his activities. There is such a thing as being too close to the machinery to see the wheels turning. One knows they are turning, realizes the driving force that accounts for the motion, may even be aware of the number of revolutions per minute, and yet cannot see the picture as a whole. To the Chairman and the Secretary, the Welfare Committee work has been a conglomeration of a thousand details. I am quite sure that the average member of the state society has not the slightest conception of the work of that committee, and I may confidently say that even those of you who have served or are serving upon the committee itself, with but few exceptions, know all that has been done or appreciate the trying hours that the Chairman has sometimes endured.

It is one thing to meet at Trenton some Sunday afternoon and resolve to oppose certain pending legislation; it is quite another thing to make that opposition effective at Trenton during the succeeding weeks. There are letters to write to the right people; interviews to be held with friends and with foes; dams to be repaired where a break has suddenly occurred; other damns to be exploded more or less vociferously upon some recalcitrant legislator. An endless detail of little things, and all of this accompanied by the uncertainties and the anxieties that attend such labor. There have been moments each win-

ter when your leader might have well felt like casting the whole thing to the winds; but I can say for the "chief" that I have never seen him waver in his determination to perform his duty to the best of his ability and to the limit of endurance.

The matter of endurance is one of the remarkable characteristics of this man McBride. His ability to work incessantly, at high pressure, and without evidence of fatigue, is the admiration, the wonder, and the envy of all observers. As Commissioner of Labor, rushing from town to town, to keep the several offices and bureaus functioning at full speed, and working at his state house desk Monday nights always until long after midnight, he was nevertheless always prepared to receive any visitor and tackle any new problem. On a few occasions I spent the night at his Trenton lodgings; he was at work when I retired at a late hour and he was taking his bath in the morning when I awoke at a reasonably early hour. I have been rather proud of my own record for long hours of work and constant application, but this man beats me and I am even unable to ascertain how he does it; how he can work so continuously, defy all the rules of hygienic conduct, and still keep so apparently fit physically.

With petty troubles of the Welfare Committee on my mind, or with some urgent message regarding legislation, I have gone to Dr. McBride at what I knew must be inopportune hours, but regardless of the hour, day or night, he has always received me with a welcoming smile, a cheery greeting, and a degree of attention that seemed to say, "I have nothing in the world to do but help you." With his desk piled high with important state documents, he was never too busy to give attention and careful consideration to matters pertaining to the state medical society. His interest was at once concentrated upon any problem submitted; his decisions have been quick and to the point; and a course of procedure or a campaign once mapped out was adhered to regardless of consequences. Now, I would not have you believe him to be an angel. I have seen his eyes flash fire, heard his voice roll like thunder, and his general attitude give abundant evidence that his blood is of Irish origin. But, as an easy boss, a boon companion, an earnest fellow-worker, Andrew F. McBride is difficult to excel. To you members of the Medical Society of New Jersey, may I say that you owe much to him who as Chairman of the Welfare Committee has guarded and guided the interests entrusted to him these past few years.

If rumor be correct, you are planning to do yourselves credit this week when you shall say unto him, well done, good and faithful servant; you have earned a reward, and we invite you to come up higher among the seats of the mighty.

Dr. Conaway: Arranging dinner parties for New Jersey doctors is getting to be somewhat of a habit for some of us. I think you gentlemen should know that our President, Dr. Mulford, was not willing to take any chances about the success of this particular occasion, because he appointed two committees to take charge of it. The completed committee consisted of 11 representative men from various parts of our state. When last Friday morning arrived and we had not yet received an acceptance from our honored guest, I began to feel a little disturbed as to whom we might use as an excuse for this affair, realizing that both Reik and Morrison had been made famous last year. Fortunately, his acceptance arrived that evening. I have never had the pleasure of working on a committee where all the members were so perfectly agreeable—in fact, we were so harmonious that it seemed to me we were as 11 souls with but a single thought—"let the Chairman do it". Our meetings, if any, were characterized by the entire absence of discord, debate, and discussion, and of the other members of the committee. I was very much pleased with the personnel of this committee, which I thought was an excellent one, but when I called up Dr. Lathrope and informed him that he was our unanimous choice for Toastmaster, his reply was "I think you've got a heluva committee". Anyway, we did the very best we could under the circumstances, and we ask your forgiveness for any errors or omissions.

There is one other duty, and then we ask to be discharged. Each man here, Dr. McBride, is proud to be considered your friend and admirer, and each one contributed to a fund which was entrusted to us with instructions to procure a suitable remembrance for you. We tried to get something that you would use and enjoy and something that you could have with you on your travels. Speaking for our committee, it now becomes my very pleasant duty to hand you this gift. Please accept it simply as a slight token of the love and the respect and the admiration of all of your friends who are now before you.

Collateral Medical Reading

THE BALANCED LIFE

Austen F. Riggs, M.D.

(In The Saturday Review of Literature, Nov. 10, 1928, appeared an article under the above title by Dr. Austen Fox Riggs, of Stockbridge, Mass., Clinical Professor of Neurology in Columbia University, College of Physicians and Surgeons, and distinguished for special work in the interest of those who suffer "nervous breakdowns". While written especially for the layman, the article contains so much of value and import to the hard worked physician—for personal application as well as for advice to his patients—that we shall reprint it in this department.—Ed.)

Every well-informed, well-endowed, and well-intentioned adult wishes to live more usefully and therefore more happily, more skilfully and therefore more pleasantly. This depends upon living intelligently until the result is the much desired balanced life.

By a "balanced" life we usually mean one in which the physical and mental activities are nicely balanced, a life that also exhibits a good balance between the serious and the frivolous, between its work and its play. Both of these balances are of indubitable importance in the kind of life which is most apt to succeed, most apt to be happy, and least liable to breaks in progress, let alone serious maladaptations. The other things that my experience has taught me to rank as of at least equal importance with physical health, work, and play, are rest, leisure, and contemplation. If these activities are in mutual equipoise and are pursued, each one, with intelligent technic, the result, according to my observations, is a balanced life, progressive, successful, and happy.

Work is obviously the first essential of a satisfactory life because it is usefulness, and usefulness is not only what civilization demands of its members, but it is also the only way in which that insistent drive to be of importance to our fellow man can be constructively and happily satisfied. Work is effort guided toward an objective, and to be satisfying it must not only be measurably successful in attaining the objective, but the objective itself must meet with the worker's approval. Whether work is in itself pleasant or unpleasant, difficult or easy, is beside the point, these are all widely varying secondary characteristics of it, but its essential characteristic is objectiveness, objectiveness to which the worker holds himself responsible. Work is marked above all things by responsibility. It is responsible striving for an approved end that differentiates work from play, from rest, or any other activity, and which makes it the nucleus and *raison d'être* of a civilized life. Like art then it must have its objective, approved by the artist, and in service of this objective, its technic.

The more nearly and obviously these two items are associated the better. For instance, in the profession of nursing, the immediate object of relieving the pain of the patient is precisely the same as the general object of relieving suffering in general. The immediate object is in this case identical with the general, a little piece of it in fact, and both the immediate and the general object are so closely connected with every smallest step of the technic that there is little likelihood of the worker losing sight of the objective; nor of the technic becoming an end in itself. In contrast, how much more difficult it is to keep the ethical objective of a complicated, prolonged, and often harassing business clearly before the mind and so prevent the technic, which involves so much of dollars and cents, from becoming an object in itself! I should say that the first and most important, and often the most difficult step in developing the best technic of work is to define clearly its object and, in so defining it, to determine, without compromise whether it is a satisfactory one or not. As an obvious example, is the object of the ancient profession of stealing satisfactory, or is that of bootlegging better or worse? Is the objective of digging ditches, or that of manufacturing arm chairs, or of lending money to individuals or industries, preferable? The technic of selling may be precisely the same whether one is selling something useful and beneficial to the purchaser or something useless and harmful, but the object in each case is totally different. One objective would satisfy, the other would either have to be hidden from the public and disguised from oneself, or acknowledged with dissatisfaction if not with shame.

Keeping clear the ultimate as well as the immediate object of work also insures the efficiency as well as the efficacy of effort, for the technic of any job must be appropriate first and foremost to its immediate, and then to its ultimate objective.

For instance, if your object is to drive a nail you pick an appropriate tool—a hammer, and use it according to a technic which has proved successful in driving nails. And if the

purpose of your work is the advancement of science, or good of mankind, the formulation of that purpose and keeping it clear in spite of threaded confusion, will go far toward guiding efforts and keeping them from being sidetracked by some irrelevant emotional impulse. If you are not on watch, a strong desire for self-expression or an impulse of self-protection may creep in and supplant the original purpose of the job. If this happens it will sooner or later affect the technic disastrously, for such errant impulses obviously require for themselves a very different technic from that of the job.

To have regular habits of work and to have office hours set exclusively for work, is essential to the highest type of professional accomplishment. It is not, as the amateur esthete would have us believe, a stultifying bondage. He scorns regularity and depends on what he calls "inspiration". He must feel like work before he can work. He confesses, albeit with pride, that he is unable to work unless his emotions are in such and such a state, unless the weather is thus and so, unless his senses are stimulated or soothed by this or that; in short, he confesses to a rigid bondage of limitations, and, worse than that, accepts no responsibility whatever toward them. Emotions being totally unreliable and irregular, he, being totally dependent upon them, is likewise totally unreliable and irregular. The intelligently regulated life of the professional, on the contrary, knows no such limitations. He holds himself responsible for using his technical ability when, and how, he chooses, and he has chosen to work at such times as best suit his needs. The working hour comes and he works. Repetition produces habit and the result is he gets full benefit from the momentum of rhythm in his working life as well as always greater power to work and work well despite contrary emotional weather. This developed and habitual ability to work stands him in good stead, for even though his emotions on occasions happen not to be particularly suitable or agreeable just before he works, they, too, are subject to habit, and after he begins to work they, too, fall into working order; whereas, on those rare days when his emotions happen to be especially finely tuned to the job, he gets a quality and strength of inspiration which the amateur could never know or, even if he knew, could never possess the technical ability to use fully. The professional, then, whose work is planned and regular, produces better work, and, in the long run, a much greater quantity of work, than the irregularly living, and irregularly working amateur.

The very practical importance of both purpose and technic is brought out very clearly, when they are given due consideration, in the process of selecting among all the possibilities what is to be the work of one's life. Many are driven by necessity to take whatever presents itself as a means of livelihood, but later on, often even they may find opportunity to exercise choice. Whether it be the first opportunity or the last, wherever there is choice, the first matter to settle is which of all these possible jobs is from the purposive point of view the most satisfactory. The ultimate purpose of this one is to grow rich, of this one to gain power of another sort, of that one to be of service to mankind in this or that way. First, which of these purposes satisfies your ideal of service for yourself? Perhaps, and most probably, several do and several do not. Those that do not are then eliminated and you have to choose between those jobs which have successfully met your first test—of purpose. Let us suppose there are four or five which have survived. Eliminate those for which you feel your particular abilities unsuited or for which you have good reason to believe your personal make-up is unsuitable. Choose among the surviving jobs those to which you feel yourself particularly suited, both emotionally and in terms of potential or already developed technical ability. Let us now suppose that the choice has narrowed down to two or three jobs, each satisfactory as to purpose, each equally suitable to one's personality and ability. All other things being equal, one would naturally choose the most available. By available, I mean not only geographically available, but socially and economically as well—the one, in short, requiring the least monetary, social, or personal sacrifice on the part of any one concerned. But suppose all these points have been settled and there still remains a choice, then there is a very important matter, partly of suitability, partly of efficiency, partly of pleasure, still to be considered most carefully and respectfully, for upon it the whole issue may hang. It is this—what kind of a personal, intimately personal, life does this job offer? Do I prefer to live in a city where I can have this or that and where I must do thus and so, or in the country? Does this job, within itself, bring me more in contact with books, with apparatus, or with human lives, and which of these do I like the most? With this job as the working nucleus of life, what about the rest

of life? Does it, with its hours and places of work, afford the opportunity of playing, as I like to play, of taking excursions into the unreal and ideal, such as concerts, picture galleries, or other hobbies of mine of that sort? And last but not least, does this or that job offer companionship in work? Will my fellow workers be satisfactory companions in arms? Of the jobs surviving the first test, then choose the one which as nearly as you can tell satisfies and pleases you emotionally, socially, and personally. In short, choose the job which affords the kind of life you like, and want to live, in terms not only of work but also of play, rest, leisure, and, last but not least, of companionship.

If work is essential to a useful and therefore happy life, so is play, for without it, life would not be balanced and could not in the long run be either as productive or as happy. To work for an ultimate objective, the fruition of which cannot occur within the span of one's life, does not come naturally or easily to man. Responsibility is an acquired attitude. To hold oneself responsible for the welfare of others rather than to seek one's own selfish salvation is, to say the least, a very difficult attitude to acquire and, at best, can become only semi-habitual. Every child, under the discipline of school, needs a recess; every soldier, under the discipline of the army, needs his furloughs. Man must have periods when he is unharnessed from his responsibilities, when he can express his natural primitive self spontaneously and with as little restraint of discipline as the welfare of his fellows may permit.

Play functions, as I understand it, as unresponsible effort, effort that is expended for the very pleasure of expending it. It is activity without any ulterior purpose, its only object being the pleasure it gives to the player. Men who have not confessed but actually boasted to me that they have taken no vacation for 10 years or even 20, have pridefully explained that they took so much pleasure in their work that it was play and that, therefore, they needed no vacation. These very men, however, were invariably suffering from lack of play, as manifested by the dead level of their seriousness, their tenseness in their emotional staleness. They took not only their jobs but themselves too seriously; they were so constantly responsible that their seriousness and their responsibility overshadowed their whole lives, choked their spontaneity, crushed out the thousand and one little pleasant, assuaging, intimate, and playful things which give life grace and ease and beauty, and under this unconsciously accumulating and unrelieved burden they had broken down. Their plight had become ultimately the same as that of some others who tried to make play, to the exclusion of work, the whole of life. Unbalance in their case was the cause of failure. The exclusive players had finally made work of play and failed; the exclusive workers had thought they had made play of work and they failed. Both had failed to continue to succeed. There can, of course, be play in work, in so far as the process of work may be and often is pleasurable in itself. The successful expenditure of energy always does give pleasure. But the processes of work, no matter how pleasant, are always overshadowed by responsibility, are always aimed toward the yet unattained objective, and therefore, always bear in themselves some degree of anxiety, some degree of doubt as to the outcome, some of the impatience which every traveler on the road experiences, and work is therefore always fraught with some of the emotional strain with which man must react to responsibility.

(To be continued)

Medical Economics

MAKING IT EASIER TO COLLECT THE DOCTOR'S BILLS

Just Why Are Doctor's Bills Hard to Collect and What May Be Done About It?

Robert R. Aurner, A.M., Ph.D.,

Professor, Department of Business Administration, School of Commerce, University of Wisconsin, Madison

(Reprinted from Wisconsin Med. Jour., Feb. 1929)

Why is it that the doctor's bills are so much harder than the average to collect?

The answer to the question is fairly complex. The whole difficulty arises because it is impracticable for a professional man in general and the doctor in particular to demand cash in advance, or even to deal on cash terms. This makes necessary the use of credit; and as soon as credit comes into the picture, you can be sure that it will drag Mr. Collection Procedure right along with it.

There can be no question but that the doctor labors at a disadvantage in collecting debts.

Certain factors are peculiar to his collection situation.

First, he is a professional man and not a business man, and is hedged about with an etiquette which makes it inadvisable for him to use precisely the collection methods of the business man. Sometimes, indeed, he interprets professional etiquette as debarring him from using any real collection methods whatever. Tradition, precedent, and the ethics of the profession have combined to discourage any vigorous attempts at collecting money owed. The doctor has been expected to minister unto mankind, to serve charitably, and not to grasp for payment.

Second, the doctor's relation with his patients is a personal one. As a consequence he feels hesitant about approaching them directly for payment.

Third, he is selling not a tangible commodity but an intangibile service; a service which different people may interpret variously and on which widely differing values may be placed; 5 or 6 months after a patient has been brought back to health, the estimate which he puts on the services of his doctor is likely to be pretty low.

Fourth, a doctor is not in a position to choose for his customers only those who are good credit risks. He is obligated professionally to render his services to anyone in need of them. Since he cannot select his prospects, it is never within his power to extend credit wisely. He is forced to extend credit whether it is wise or not; there is no choice about it.

Fifth, the doctor is prone to entertain the feeling that it is hardly decent to press for payment at any time; and under no circumstances until the patient has recovered. As will be seen in a moment this is in one sense a leading reason for delinquency in the payment of medical bills.

Sixth, the doctor deals with "unbusinesslike" people. When this statement is analyzed, it is found to mean that he is dealing with people who are not accustomed to business procedure, to business obligations, to business self-interest. Their unbusinesslike outlook comes first from lack of education as to the meaning of the credit obligation, and second from lack of any feeling of self-interest in liquidating the debt.

Seventh, the doctor is forced to fight a fundamentally adverse condition. It is almost a national habit to postpone the doctor's bill.

Eighth, the bill as finally rendered is sometimes for a lump sum of considerable size which the patient realizes at once he will be unable to settle in full at the moment of presentation. This leads to a delay on the whole sum which, from the standpoint of strategy, is most damaging to the doctor's case.

Here, then, are 8 major factors peculiar to the doctor's collection situation. Let us study each one more critically, with a view to formulating an answer to the questions, why are the doctor's bills harder than the average to collect, and what may be done about it?

It is unfortunate that medical ethics have in the past been so often interpreted as debarring the doctor from employing any real collection methods. Many just fees have been lost through an oversensitiveness on this point. It may be said that professional etiquette has been maintained at the expense of efficient collection; and often in those directions, too, in which efficient collection would in no sense have infringed upon the strictest professional etiquette. From my contact with a number of clinics in the middle west, it has been my observation that a slow swing is developing in favor of a more intelligent application of collection pressure and a more systematic follow up of medical accounts. Nor has it been found that professional ethics are in any degree impaired.

It is true that the sometimes embarrassing personal relationship of the doctor with his patient is nicely avoided by the clinic system of management. And yet the personal relationship of the doctor with his patient may be interpreted as a distinct advantage as well as a disadvantage. Whenever a personal relationship exists, there, also, is confidence; and where a personal confidence is established, the obligation to pay is harder to forget. Without seeming to press his patient overmuch in later stages of collection, the doctor may briefly call attention to the personal nature of the services rendered and the instant willingness with which they were given. The patient inevitably reacts best to the good will, golden rule, fair-play note.

If we reduce a collection situation to its basic elements, we find that it involves something like the following facts:

(1) A man conceives a desire for an article or a service.

(2) His desire to have the article or service outweighs his desire to hang on to his hard-earned income (in this case, credit).

(3) He purchases the article or the service on credit.

(4) The bill becomes due.

(5) He either pays it, or delays indefinitely in paying it, or never pays it at all.

Our problem in the case of the medical account differs in only one important particular. The patient did not wish to get sick. The idea of going to the doctor is at first distasteful to him. In all too many cases he unwisely puts off the visit. Reluctance to go to the doctor's office is reinforced by reluctance to incur the doctor's bill. Nevertheless, at the time he enters the doctor's office he knows more vividly than he will at any later time that he is going to have to pay something for the treatment which he will receive. From the ideal collection standpoint the time to approach a patient about his bill is not after he is out from under the doctor's care and has completely recovered his health but while he is still undergoing treatment and has a vivid impression of the hundred and one things that are being done for him, and when it is a dozen times easier to educate him to the tangible credit obligation he has incurred.

The experienced collection manager in a business establishment will tell you that the longer an account runs the harder it is to collect. There is a reason for this. The sense of value received fades into the background of the patient's mind with the passing of time; finally there is nothing left but the unhappy realization that payment still hangs over him. To none of us is there any stimulus in merely settling a debt. When it is hard to see or to remember what it is we are paying for, we become increasingly reluctant to relinquish our money. Whenever a patient is discharged from medical care with his bill unpaid—this is of course predominantly the case—and especially where the unpaid bill is allowed to remain so for any length of time, the necessity will arise for repainting in the patient's mind as vividly as possible, the services that were rendered to him in the time of his great need. Otherwise he will forget; and, forgetting, he will not want to pay.

The experienced collection manager in a business house will also make this point: "Credits are nine-tenths of collections". In medical treatment, however, it will always be true that patients must be taken as they come. Hopeless credit risks must be assumed along with those who are the most honorable in prompt payment. Of course the mercantile collection manager does not mean that he extends credit only to good risks, nor does he mean that he extends credit only to those who are in the best possible situation to pay. He prides himself rather on his ability to get money promptly from customers whom other merchants have difficulty in collecting from at all. The secret of his success is this: he establishes with his customer, just as it would be wise for the doctor to establish with his patient, so complete an understanding of the value of the services received and of the method of payment, that it will be easy to revive his memory of the understanding and, on the basis of that agreement, to bring about a relatively easy collection.

From the practical standpoint collection is resale, which means reëstablishing so far as possible the mental attitude of the customer at the time of the original purchase. Unless the customer was at that moment dishonest, he felt in his own mind a willingness to part with his money for the service he was getting. If the unpleasant visual image of paying can be submerged under a series of constructive images of the care the patient has received, the collector's efforts will be more successful. The key to results will be found in keeping such close contact at all times with the patient that the memory of value received and obligation incurred never fades from his mind. To be successful, collections must be prompt, regular, and systematic.

The question is sometimes raised, as it was in a recent Milwaukee convention, as to why so much effort should be expended after all to collect doctor's bills? Why should doctors not render these services to the community gratis all of the way instead of only for the charity percentage of their work? The answer of course is that doctors cannot exist, and the community must be deprived of their profession, if they are not to collect their money. This argument, kept in the forefront of the patient's mind in collection messages, has proved effective.

The question is also raised as to whether a doctor should collect all of his outstanding bills? The answer must be no. The millenium of 100% collections will never arrive; and it is doubtful if it should be wished for. Yet, if there is to be any backbone in a medical collection system, every cent of the regu-

lar charge which it does not collect should be definitely remitted by the doctor as the result, not of a failure to collect but of a clear understanding and a friendly adjustment.

No true analogy can be drawn between mercantile collections and medical collections. We see that the retail purchaser pays in order to escape the annoyance of being dunned, and in order not to have his credit with the merchants cut off. A man who buys an order of groceries pays his bill in order that he may maintain for himself the privilege of buying his groceries next month on credit. A man pays his electric light bill in order to avoid living in the dark when night comes on. The merchant, in turn, pays his wholesalers in order to be able to secure more goods with which to carry on his business. But no doctor would dare to close his office doors on an emergency case, merely because the patient did not pay his former bill. The same weapon is not available. The patient cannot be made to realize in just the same way that he must pay the doctor in order to obtain his services again in time of need.

A large part of the difficulty which the doctor has with many of his outstanding accounts is owing to the fundamentally adverse conditions which he finds himself forced to fight. For many years there has been the tradition that the medical profession can wait, that payment can be indefinitely postponed as if it were a matter purely of individual choice. It would not, perhaps, be too difficult even today to overhear doctors saying to their patients at the time of their discharge from treatment: "Oh, don't bother about the payment. Just pay when you get ready." Naturally patients have followed this liberal and pleasing suggestion. When the full weight of such a tradition oppresses the medical profession, it is bound to jeopardize certain phases of the business end.

The lump sum bill of perhaps unexpected size, making it impossible for the patient to settle in full at once, is often used as an excuse for delay; yet such an excuse is easily countered by offering the installment method. It should, however, be an installment method based not upon vague figures, but upon a clearly understood agreement of systematic payments at specified intervals.

In Lighter Vein

Knows His Business

"Is he a good rabbit dog?" inquired the hunter, after inspecting the animal.

"I'll say he is!" the dealer replied with pride. "You should have seen the way he went after my wife's new sealskin coat!"—American Legion Monthly.

Towering Intellect

Prof.—"In which of his battles was Alexander the Great killed?"

Frosh—"I think it was his last."—Lyre.

Rooted Objection

Mistress—"You must exercise a little will power with him, nurse."

Nurse—"I do try to, mum, but you don't know his won't power."—London Mail.

Gold Strike

"Have you heard that our friend Meyer has become rich at a single stroke?"

"No. How did it happen?"

"His rich uncle had a stroke."—Lustige Kölner Zeitung (Cologne).

Sole of Her Foot

First Doc—"You look worried."

Second Ditto—"I am. I have a very puzzling case. A flapper wants to be vaccinated and insists I vaccinate her where it won't show."—Cincinnati Enquirer.

Anti-Bunk Again

Will Rogers was asked to give a testimonial to a certain make of American piano. "Dear Sirs," he wrote in reply, "I guess your pianos are the best I ever leaned against."—London Opinion.

Don't Press Now, Doc!

"Here," said the famous surgeon as he prepared to lift the prizefighter's appendix, "is where I slice into the rough."—Life.

When Mary Steps on It

A long-legged sheep in the Himalayas is able to run forty miles an hour. That's the kind of little lamb to follow Mary nowadays.—Onward, quoted by the Christian Advocate.

An Englishman is going to put gunsights on his car to steer by. What are us pedestrians gonna do now?—Dallas News.

Job for a Chartered Accountant

"Did you hear the joke about that film actress?"

"No, what was it?"

"Her secretary didn't keep the records straight, and now she finds she had had two more divorces than she's had weddings."—Goblin.

Observations from the Lighthouse

THE PSYCHOLOGY OF APPEARANCES

An article under this title, by Adalbert G. Bettman (Northwest Med., 28:182, April, 1929) contains a number of important facts for physicians to keep ever in mind:

"People are more sensitive at this time regarding their appearance than they ever have been for the reason that the present day individual has harder competition in the race of life and his sensibilities are more keenly developed. The esthetic side of life is more important now than ever before. Certainly, individuals differ as to their sensibilities to defects. One sees men and women who have marked deformities and who go about apparently heedless of them, but the psychologist and the plastic surgeon know that the apparent heedlessness is but a thin mask to cover a psychic distress. Another individual has some slight defect, so small perhaps as to be noticeable only after it has been called to one's attention, but it manifestly produces great mental annoyance. Between these are the great majority of people having disfiguring lesions.

A large and noticeable defect offers no inconvenience or psychologic reaction, no hindrance to our success or well being when on some one else's face. But on the face of the one who is forced to carry it around day after day it becomes an increasing mental, psychologic burden. He attempts to avoid it as a criminal does his conscience. The burden of the defect does not differ with race, sex, social position, occupation, type, color or other factors, but depends on the susceptibility and psychologic reaction of the person affected.

Remove a defect and you change a man's appearance. Changing his appearance changes the interpretation which the community makes of his character. In other words, changing a man's appearance changes his reputation. He then adjusts his character to meet his new reputation. Following removal of a deformity, friends remark on the improved appearance of the individual, but are at a loss to explain it, as usually there are no tell-tale scars to be seen. Strange as it may seem, a patient with a corrected deformity immediately forgets the defect he had, and when shown the photographs and cast of his original condition is often surprised when he realizes that his deformity had been so great. It is, therefore, important that photographs be taken before operation in every case and that casts be made wherever possible. They also aid in planning the operative procedure.

An individual with a deforming scar or other large disfigurement is conspicuous, and as he walks down the street people turn to take a second look at him. Remove the deformity and not only does his psychology change, but the expression on his face changes also. When a child receives an injury that leaves a scar, the old grandmother says, "It doesn't make so much difference, he is only a boy". The truth of the matter is, however, that it is just as horrible for a boy as for a girl. A few patients develop typical neurosis from fear that the condition may become worse, fear of conspicuousness, fear of loss of employment, of friends, associates and social position. The depression is manifest in their general attitude and they lose the zest of living. Not rarely do they commit suicide. Their appearance weighs so heavily on their minds that they cannot tolerate it.

Ethical surgeons should treat these patients as they deserve by removing the deformity, and ethical physicians should cease to decry this type of medical attention. Plastic surgery is more than justified, and patients who have been benefited by it are more grateful than those who have been grasped from the very jaws of death."

Crossed Eyes

Fittingly associated with the previously quoted article is one by H. V. Wurdemann (Northwest Med., 28:180, April 1929) on the subject of preventing and correcting the evil appearance induced by crossed eyes:

"Cross-eyed and wall-eyed people are materially handicapped. Besides being only one-eyed, the cosmetic defect has a deleterious effect upon their social and mental development and in later life interfers with their love affairs and their business. For what man likes to look into the eyes of a cockeyed maid or who wants to do business with a man who does not look one squarely in the eyes? Therefore, squint should be prevented, and if the eyes do not function together they should be straightened, and it can be done in almost all cases.

Every oculist is constantly told by parents or patients that their family physician had advised waiting for glasses and operation until the child has reached school age, or even till he was 14 or 15 years of age; that he might 'grow out of it'. Yes, I have seen a few, but very few, who squinted in youth and had straight eyes in adult life without any treatment. I am convinced that these were not real strabismus cases, but were probably ones of partial paralysis of the externi, whose centers and nerves are most vulnerable to toxemias of disease.

The important functions in vision are (1) accurate vision with each eye and (2) the ability to use both eyes together. The former is acquired early, the latter late and under adverse conditions, the latest function being usually the earliest lost.

The most frequent cause of deviation is a large error of refraction, in which any cause reducing the bodily resistance—measles, whooping cough or other illness—affects the subconscious mind of the child when it finds difficulty in seeing and cannot make the extra effort for coördination with concomitant movements and parallelism of the globes in all directions. So, efforts at fusion, which is a congenital faculty, are abandoned; the better eye wins out and the other usually turns in. Hence the development of squint is usually ascribed by the parents to whooping cough, measles, etc., because it is first noticed when such disease happens to have been present.

If both eyes have almost the same acuity and refraction, the eyes may alternate in use. Approximately the prism degrees of convergence are thrice the diopters of accommodation. Therefore, if a child starts out with 5 D. of hyperopia, it has to accommodate this much for distance and with this would go thrice the amount of convergence; it would then, if the defect were not corrected by dissociation, squint 15°. Then, as we have 2 eyes, and at first the image of each is perceived by the brain, double vision occurs, which nature does not like, and hence

pulls the weaker eye further out of the way, making a secondary deviation of greater degree. The primary deviation is always in both eyes, and both eyes squint. Hence, when operation is needed, it is usually necessary to operate on both eyes. Of course, there are other causes of squint but this statement takes care of the usual cases.

But operation is unnecessary in the early stages, in fact, seldom under the fifth year of life. Out of the last 50 cases of squinting children under 12 years of age, I have operated on but 3 and all of them now have straight eyes. The first step in treatment is to treat the parents. Tell them what can be done and what cannot. Insist that orthoptic treatment and lenses should first be tried before recourse is had to operation and even in these it is to be continued until stereoscopic vision is established. Explain that the usual case should have the refraction measured, lenses prescribed, and that glasses should be worn all the time and ocular exercises should be continued for at least 6 months; that *all eyes can be straightened,* and that they *must be,* not only for cosmetic reasons but in order to preserve the sight. Do not allow yourself to operate until sufficient orthoptic treatment has been given.

The procedure in the average case is to employ, after 2 years of age, exercises with the Worth amblyoscope—a stereoscope with movable sides—in the doctor's office. The colored Knoll's charts for very young children and the Well's charts with the stereoscope for older ones at home will, with corrected refraction, in 9 cases out of 10 straighten the eyes within a few weeks. Cases that come to operation in the third to eighth year of life sometimes achieve normal stereoscopic vision, but after this age all we can expect is a fairly good cosmetic result with the expectation that later in life a relapse or an overeffect may be the result of all our work.

The treatment of squint should be given as early as it is observed. Most cases are cured by lenses and orthoptic exercises. All cock-eyes can be cosmetically cured. Get them early and get results. Start the treatment of strabismus as soon as deviation is noted after 3 months of age, and you can safely promise straight eyes with binocular vision without recourse to operation in practically all cases, but wait a few years and you can promise nothing but an approximate cosmetic correction with one poor-seeing eye."

Communications

SECOND GRADUATE FORTNIGHT OF THE NEW YORK ACADEMY OF MEDICINE OCTOBER 7-19, 1929

"Functional and Nervous Problems in Medicine and Surgery"

Encouraged by the success of the First Annual Graduate Fortnight held last October, the New York Academy of Medicine has arranged for a second Fortnight, to be held October 7-19 of this year and has chosen as the subject "Functional and Nervous Problems in Medicine and Surgery". The field includes those functional disturbances which have been much neglected in the last 30 years in comparison with the structural disturbances of the human body. The topic covers differential diagnosis of functional and organic derangements in all branches of medicine and surgery. It is believed that the subject will attract not only the medical profession generally but also social workers and those interested in public welfare.

In the afternoons 9 of the large hospitals of the city, with an abundance of clinical material, will coöperate in the Fortnight by presenting specially arranged clinical programs bearing upon different phases of the general subject. Besides the special programs which will be presented, over 50 of the teaching hospitals of the city will offer (mornings and afternoons) nonoperative clinics and clinical conferences in various specialties, and in mental hygiene subjects such as behavior and habit problems, child guidance, and vocational adjustment.

Sessions will be held at the Academy each evening throughout the Fortnight. The titles to be presented in the evening programs will cover: The involuntary nervous system, Hysteria as a practical problem, Neuroses following accident, Postoperative emotional disorders—their prevention and management, Endocrines and the vegetative system, General survey of visceral neuroses, Metabolism and the vegetative nervous system, Headache and migraine, Cardiac neuroses, Vascular neuroses, Gastro-intestinal neuroses, Surgery of the vegetative nervous system, Habit and behavior problems, Neurocirculatory asthenia, Function of the emotions in production and prognosis of diseases, Insomnia and disturbances of sleep, psychoneuroses, and Psychotherapy.

The list of American and foreign speakers includes: Livingston Farrand, President, Cornell University; Clifford Beers, Secretary, The National Committee for Mental Hygiene; Ludwig Kast, Professor of Medicine, New York Post-Graduate Medical School; Walter Langdon-Brown, Physician, St. Bartholomew's Hospital, London; C. Macfio Campbell, Professor of Psychiatry, Harvard University; Foster Kennedy, Professor of Neurology, Cornell University; Robert B. McGraw, Assistant Physician, Presbyterian Hospital; Walter Timme, Attending Physician, Neurological Institute; Leopold Lichtwitz, Professor Internal Medicine and Chief of Medical Department, Municipal Hospital, Altona, Germany,; Anton Julius Carlson, Professor of Physiology, University of Chicago; Frederick Tilney, Professor of Neurology, Columbia University; Robert H. Halsey, Professor of Medicine, New York Post-Graduate Medical School; Israel Strauss, Attending Neurologist, Mount Sinai Hospital; Burrill B. Crohn, Associate Physician, Mount Sinai Hospital; Alfred W. Adson, Assistant Professor of Surgery, University of Minnesota; Herman M. Adler, Director, Institute for Juvenile Research, Chicago; Marcus A. Rothschild, Associate Physician, Mount Sinai Hospital; Charles P. Emerson, Professor of Medicine, Indiana University; Carl Pototzky, Director, Children's Clinic, Kaiserin Augusta Victoria Hospital, Berlin; Louis Casamajor, Professor of Neurology, Columbia University; William A. White, Director, St. Elizabeth's Hospital, Washington.

The profession generally is invited to attend.

No fees will be charged for attendance at any of the clinics or meetings on the program.

A complete program and registration blanks for special clinics and demonstrations will be mailed on request.

Lay Mirror Reflections

TARIFF ON SURGICAL INSTRUMENTS

Shortly after the extra session of Congress convened in April the Ways and Means Committee of the House submitted a new Tariff Bill increasing the duties on nearly all articles now or likely ever to be imported. In the name of the Medical Society of New Jersey, the Executive Secretary promptly filed a protest with both Senators and each of the 12 Representatives from this state. The points were made that the proposed increase of tariff rate would work a hardship upon physicians and hospitals, would prove to be an additional burden upon the sick and afflicted, and that a very large proportion of instruments and surgical equipment imported is purchased abroad for the reason that such apparatus is not, and generally cannot be, manufactured in this country. We are glad to publish Mr. Coler's letter on this subject, and suggest that every member of this society immediately communicate with his Senator and Congressman, in opposition to the Bill now pending.

SURGICAL INSTRUMENTS

Mr. Coler Clarifies Some Points About the Domestic Output

(New York Times, June 15, 1929)

G. F. Richter, a domestic manufacturer of surgical instruments and hence an advocate of higher tariff rates on his products, in his letter to The Times, expresses his surprise that I should protest against any increase in duty on surgical instruments, even though I do so solely as one interested in the welfare of the hospitals of our country. I am by no means alone in protesting such increase.

Dr. Franklin H. Martin, the Director General of the American College of Surgeons, an organization of nearly all the prominent surgeons of this country, is absolutely opposed to such increase.

The American Hospital Association and the other prominent hospital associations, representing most of the 9000 hospitals in the United States, as well as the American Medical Association and other similar bodies, all protest this unnecessary increase in duty.

These institutions and individuals have a distinguished record for charitable and unselfish work of the noblest kind. The hospitals and physicians and surgeons have but one thought, namely, that the preservation of the public health demands that the very best instruments and other supplies be obtained with as little expense as is consistent with the maintenance of highest quality and with the public welfare. Of all the bodies and individuals whose patriotism and record of unselfish service can least be questioned, the hospitals and our distinguished surgeons and physicians stand in the forefront.

Mr. Richter quotes a report of the traiff commission showing that the domestic manufacturers produced only $380,000 of surgical instruments in 1914, and that the production in 1917 had risen to $1,458,000, and in 1918 to $2,780,000. He failed to state, however, that the large production in 1917 and 1918 was due, almost entirely, to the tremendous war orders of the United States Government for our army and navy.

It is quite beside the point that the purchase of surgical instruments is a relatively small percentage of the total annual operating expense of the average hospital. The real point is that the hospitals, which are always struggling to obtain sufficient funds for their proper operation, must economize wherever possible and should not be made the victims of an extortionate increase in the tariff, especially if no proper and legitimate benefit to the domestic industry is accomplished thereby.

The fact is that there are two general classes of surgical instruments: those made of soft metal such as brass, aluminum, etc., and those made of hard, finely tempered steel. The American manufacturers have always had a monopoly of the soft-metal goods because they were able to manufacture them on a quantity basis and apply American manufacturing methods. The steel instruments, with some few exceptions, have always been imported. There are over 12,000 varieties, and therefore do not permit of mass production. Those types which are used in large quantities, such as surgical knives, obstetrical forceps and Richter's needle-holder, and can therefore be manufactured on a quantity basis, are made by domestic manufacturers. Because of this great diversity of instruments, it does not pay the American manufacturer to equip himself with the expensive dies and tools for each type of instrument, because the quantity sold in the United States is too small to warrant the expense. Moreover, we have not the great body of skilled mechanics which Germany has developed in the course of several generations. Nor is it necessary. If another great war should occur, American resourcefulness would be as successful as in the World War. Skilled mechanics in the non-essential trades, such as manufacture of jewelry, would be drafted into the making of surgical instruments.

On the other hand, the American manufacturers of soft-metal instruments and of those steel instruments which are produced in larger quantities have prospered under a tariff which during the past fifty years has never exceeded 45%.

Any increase in tariff merely means an opportunity for the domestic manufacturer to add that much more to his price, and further means that the hospitals and surgeons, who are the only purchasers of instruments, must pay that much more for all the instruments used by them.

Bird S. Coler.

Medical Book Review

(Department Director, Royce Paddock, M.D., Newark, N. J.)

SYPHILIS. Acquired and Heredosyphilis. Charles C. Dennie, Harper's Medical Monographs. New York and London, 1928. Harper and Brothers, Publishers.

A book of pocket size, representing standard knowledge of diagnosis and treatment of this disease, is an ideal not easy of accomplishment. With 2 large standard works, Stokes' "Clinical Syphilology" and Kolmer's "Chemotherapy with Special Reference to Syphilis", both of recent date, Dr. Dennie's smaller work has appeared and claims recognition as a work which adequately covers its extensive and intricate field. The necessary, almost encyclopedic, system of the larger works, with differing emphasis, the former clinical, the later chemotherapeutic, has been followed in this small monograph, which is essentially clinical yet gives an adequate amount of space to the laboratory requirements for diagnosis and the minutiæ of treatment.

The special excellence of this volume lies in its refusal to make its subject more simple and diagramatic than it actually is. The contents may be roughly divided into 3 main sections. The first includes the pathology of syphilis in its fundamental forms, the primary and secondary manifestations of the skin and mucous membranes, and syphilis of the bones. The second portion covers the whole field of visceral syphilis, including the nervous system; while the third is devoted to treatment, except for a consideration of syphilis in pregnancy, heredosyphilis, and a very short chapter on public health.

All of its many subdivisions are covered briefly but effectively. Cardiovascular syphilis is treated more fully than the other sections, which are necessarily compressed. The sections on syphilis of the eye, heredosyphilis, tabes, and paresis, are especially thorough. The number and variety of sub-headings are impressive and make the book a real aid in reference, though small and without an index. The chapter on heredosyphilis, for instance, 20 pages long, contains over 60 sub-divisions. The author has made a sincere effort to complete the monograph as far as possible within his space. He has moreover provided differential diagnoses in almost all regions, and they seem practical rather than academic. He points out those manifestations in which the Wassermann test is likely to be positive, and the reverse; when arsphenamin is indicated, when contraindicated; when arsphenamin should be preceded by mercury, or accompanied by bismuth. In the clearness of his indications, and his statistics of incidence, the author has seemed to take as his model the plan of Osler's Practice of Medicine. The result at any rate will make the little work a favorite for ready reference. Continued study will be easier than with the larger tomes, and equally worth while.

Of the data contained, the author's findings in bone lesions of heredosyphilis are striking. In two-fifths of his 50 cases, no other physical sign than Roentgen findings in the bones was present. The other three-fifths showed some other stigmas, though only 10 showed interstitial keratitis and only 5 Hutchison's teeth; 40 of these 50 showed a positive Wassermann. The author asks that syphilis be considered and diagnosed or excluded in all bone lesions in children. Besides periostitis, epiphysitis, and dactylitis, he considers bursitis and perl-articular infiltration to be often of syphilitic origin in children.

The section on technic of diagnosis in the early stage by dark field examination, as well as diagnosis by lumbar puncture, and the technic of arsphenamin and neo-arsphenamin administration, are all clear and complete. The latter are greatly helped by lists of apparatus and especially by clear line-drawings of assembled apparatus ready to use. The outlines of treatment courses are definite in detail and varied according to the phase of pathology and region involved. The dark field examination is given its properly important place in early diagnosis, and the importance of atypical and extragenital chancres is signified by adequate and differential descriptions. The Wassermann reaction is treated in a short chapter which shows its limitations as well as its importance in diagnosis. Emphasis placed on the need for repeating the Wassermann, and the limited value of a single test, is very sound.

Certain blemishes in the book are apparent. Typographic errors, while not frequent, are careless and confusing in some instances. Description is occasionally not clear, as in the technic of intramuscular injection. These are exceptions which do not spoil the general grade of performance.

County Society Reports

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

A regular meeting of the Burlington County Medical Society was called at 1.30 p. m., Wednesday, July 10, at the Riverton Country Club. In the absence of President Bauer, Dr. Emlen Stokes presided. There were 14 members present, and 2 guests, Drs. Vateri and Williams of the Burlington County Hospital.

The following were voted to membership in the society: Drs. S. J. Marks, of Bordentown, and Luther M. Hartman, of Mapleshade. Applications for membership were received from Drs. Robert Imhoff, of Moorestown, and Hammel P. Shipps, of Delanco.

A committee composed of Drs. Joseph Stokes, Edgar Haines and Emlen Darlington presented the following resolutions on the death of Dr. Benjamin K. Brick:

"With profound regret, as a testimonial of our personal esteem and of our high regard for his professional ability, the Burlington County Medical Society desires to place on record its sense of loss in the passing of Dr. Benjamin K. Brick, of Marlton, on the 25th of June.

Dr. Brick was born at Marlton, October 14, 1872, attended high school in Marlton, then went to the South Jersey Institute at Bridgeton and was afterward graduated from Bucknell University in 1895.

In 1899 he was graduated from the Medical School of the University of Pennsylvania and soon thereafter settled in his home town and took up the general practice of medicine. A hard conscientious worker, a man of sound com-

mon sense, and of professional ability, he soon gained the confidence and high esteem of his community, which will long remember his kind, faithful and efficient ministration to their ills.

We direct that a copy of this Minute be sent to his family, to whom we extend our sincere sympathy."

The Secretary read a letter from the Jeanes Hospital of Fox Chase, Philadelphia, inviting this society to hold one of its fall or winter meetings at the hospital, for the purpose of having the members become better acquainted with the work of the hospital. The Secretary was instructed to call a special meeting of the society in the near future at the Jeanes Hospital, to accept the kind invitation of its Board of Trustees.

A letter from the Council on Medical Education and Hospitals of the American Medical Association was read. Its subject was "Essentials of a Registered Hospital". Its object was to establish a closer understanding and coöperation in regard to (1) hospital privileges, and (2) the relation of the hospital conferences to the medical society program.

The society feels that it has nothing in common with any of the cults which have no standing in the local hospital. It was voted that a committee be formed and report at a later meeting to consider the subject of the hospital conferences and the medical society programs.

A letter received from the Director of Health stated that a series of demonstration clinics on the treatment of syphilis and gonorrhea was being given by Dr. Casselman in various localities in the state. These were to aid the general practitioner in this work. The society will be glad to arrange for a demonstration at some future date.

Dr. Harry L. Rogers, chairman of section on Gynecology and Obstetrics, then took charge of the scientific program. He announced that Dr. John C. Hurst, of Philadelphia, who was to address us on "Toxemia of Pregnancy", had found himself at the last minute unable to be present. A number of interesting and unusual cases were reported by members of the society. These included the report of a stillbirth of a monster with 2 heads, unusual ectopic pregnancies, and intestinal obstruction of a new-born with autopsy showing obliteration at ileo-cecal valve and absence of large intestine. Several members spoke of the excellent results from the liver extracts of Lily, both in primary and secondary anemia.

After lunch the members disbanded with a feeling that the meeting had been of benefit to all.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

The society met at the Weatherby House, Millville, July 9. The extreme heat did not deter a large number from gathering to listen to and take part in the very interesting program.

Dr. J. Frank J. T. Aitken was elected to membership in the society.

Dr. James R. Martin, Associate Professor of Orthopedic Surgery at Jefferson Medical College, discussed the subject, "Foot Strain and Painful Feet". Possible foot strain should be anticipated by the use of properly fitting shoes. The weight should be distributed with reference to the heel, ball, and arch. The turn of the sole of the shoe should be adjusted to the bunion. The heel should be broad and heavy, as it carries two-thirds to three-fourths of the body weight. Exercise of the foot to correct weakness should not be substituted when support is needed. Through proper adjustment of the sole and heel the arch support is not needed as formerly. The high heel now in vogue contracts the tendon and muscles, and the use of plaster cast with leg in flexion, to be gradually extended later is the treatment preferred.

Dr. A. Strauss, Associate Professor of Dermatology at Jefferson Medical College, gave an address on the "Seven Ages of the Skin". The various natal conditions, such as nevi or angiomas, are readily treated by carbon dioxide snow or fulguration and radium. The school age has various forms which yield readily to sulphur or diluted ammoniated mercury ointments.

The eczemas of childhood are usually due to excess protein in milk. Advise parents to cut down the amount; crude coal tar ointment is the remedy par excellence for this disease. The diseases of adolescence are usually due to excess of sugar and carbohydrates and at times to retention of menstrual irritants. Dermatitis venenata may sometimes be benefited by removing sterile serum from the blisters with a hypodermic syringe and injecting the patient.

HUDSON COUNTY

Meeting of the Clinical Society, North Hudson Hospital, Weehawken, New Jersey

The regular monthly meeting of the Clinical Society was held Tuesday, June 18, 1929, with Dr. B. Kooperman acting as chairman. The hospital report for the month of May, 1929, was read by Dr. Tannert: Total discharges, 359; deaths, 26, of which 11 were medical, 11 surgical, 3 pediatric and 1 stillbirth; 7 autopsies were obtained. Dr. Klaus referred to the survey made by a representative of the Council on Medical Education of the A. M. A.; the problem of instruction of the interns by visiting physicians was especially stressed, it being suggested that the histories and physical examinations written by the interns be read, corrected and signed by the attending staff. Dr. Luippold discussed in detail death case No. 15704, and Dr. D'Acierno death case No. 15922, which were also thoroughly discussed by the Staff.

The following cases were presented.

Hyperthyroidism Complicating Acute Appendicitis

Dr. Schulman.—Truck driver, age 31, admitted to hospital with chief complaint of pain in R.L.Q. Present illness began at 2:00 a. m., April 19, 1929, when he was suddenly awakened with sharp pain in upper abdomen; felt nauseated and vomited twice; had taken a cathartic at 9:00 p. m. prior to onset. Pain persisted until morning, but gradually disappeared. When seen at 11:00 a. m., temperature was 99.5°, pulse 120; no pain in abdomen, but tenderness at McBurney's point. Patient had never been ill except for occasional attacks of bronchitis.

Physical examination: Patient of the dull, apathetic type; eyes somewhat starey but not bulging; heart sounds very rapid with systolic blow at apex; rate 140. Abdomen showed marked pulse of abdominal aorta; tenderness and rebound tenderness at McBurney's point; no rigidity. Blood count: WBC 10,400; polys 74%. Urine

negative. Operation, after consultation with Dr. Pearlstein, revealed a thickened gangrenous appendix and abdomen full of fluid. Abdomen was closed with a drain down to the appendix region.

Course of disease: Patient's temperature for the next week ranged between 101-103°. Pulse, however, remained rapid, ranging from 120 to 150. After the third day, considerable pus drained through the wound. After first week, temperature dropped; pulse however, still ranging between 120-150. As the wound was still draining considerable pus and a small fecal fistula developed, it was thought that the rapid pulse was due to possible absorption, but as wound closed and pulse remained high, further cause was looked for. It was noted that the patient was rapidly losing weight; eyes were staring and slightly bulging. A small mass was felt in the right side of the neck, low down; slight tremors developed. From a dull apathetic individual, he changed into a very nervous type, crying at the least possible cause. Blood count at this time was negative; blood culture and blood chemistry, negative; metabolism +58. After the third week, the mass seemed slightly larger, pulse remained high, and nervousness increased. Patient was still losing weight rapidly; seemed dissatisfied with surroundings and insisted on being removed home but was prevailed upon to stay another week. During that time he continued to lose weight rapidly, total loss during stay in hospital being 100 lb. Metabolism +60; pulse high. After another consultation with Dr. Pearlstein, it was decided, because of his mental condiiton, to remove him home, May 27, 1929. He was put on bromides and Lugol's solution.

At present he is still in bed, pulse ranging between 100-120; appetitie enormous and some weight regained, not, however, in proportion to the amount of food consumed. Mental and physical condition much better and there is apparent improvement, but pulse still high. The thyroid gland, especially on the right side, is still enlarged; eyes still bulge; no other symptoms.

The reason for presenting this case is the rarity of hyperthyroidism, which most likely was latent in the patient, being brought out by acute infection. Also to elicit the opinion of the surgeons as to whether thyroid surgery is indicated in this case to insure complete cure. Nothing was found in the literature regarding hyperthyroidism as a complication of appendicitis. Morris, on the other hand, states that mild cases of hyperthyroidism are sometimes cured when a chronic appendix, of long duration, is removed.

Discussion

Dr. Justin asked if the lump in the neck had been felt prior to operation; Dr. Comora suggested the sinuses, nose, and tonsils as possible foci tending to flare up a latent condition. Dr. Klaus said there was no question but that the etiologic factor which precipitated the thyroid crisis was infection; as regards surgery, this should be considered if further crises occurred; under medical treatment the first attack will probably subside. Dr. Pearlstein explained the thyroid activity produced by infectious disease as due to absorption of colloid material and lessening of the iodin content; later, it is assumed, the gland becomes activated, with resultant hyperactivity; his opinion in this case is that surgery is indicated at the present time, because although the patient has had 8 weeks of rest, quiet and medication, yet he is not maintaining himself, and his heart is tremendously overworked; the question of a possible endocarditis or myocarditis must be kept in mind. Dr. Pagliughi questioned the advisability of administering Lugol's solution at this time; if the mass were an adenoma, the only cure is surgery. Dr. D'Acierno was convinced that the thyroid condition preceded the infection in the appendix; the fact that when first seen, the patient had "staring eyes and a murmur" supports this view, while the appendicitis precipitated a latent thyroid condition, so that he would rather call this case hyperthyroidism complicated by appendicitis; Lugol's might be harmful in this case. Dr. Eckert suggested the possibility of a thyroiditis, with pain and tenderness over the gland. Dr. Lange stated that the condition travels in cycles, and that another attack might not occur for 6 months; he would not operate at once, as the whole condition might be ameliorated medically; he would wait perhaps a year. Dr. Tyndall classified these cases into 2 main groups: (1) the exophthalmic type, which responds to Lugol's and reaches a point where it becomes an operative risk; (2) an adenoma, which has become hyperactive, which does not respond to Lugol's but in fact gets worse on it, and which only surgery will cure. Dr. Stein drew attention to the use of radium and x-rays in treatment of certain types of exophthalmic goiter. Dr. Schulman concluded: patient is receiving 2-3 gtt. Lugol's solution and the condition is not clearing up, the systolic blow still being heard; rate is about 120, patient always feels tired and is losing weight, basal metabolism varying from +45 to +50; there is no apparent cause for x-ray investigation of the sinuses, etc.; tonsils negative; no pain or tenderness over the thyroid. Dr. Schulman believed the thyroid condition to be secondary to the appendicitis.

Abdominal Pregnancy

Dr. H. Klaus.—Woman, age 27, admitted to hospital May 31, 1929, with history of sudden most severe pain in lower quadrants, more intense on right side, of 10 hours' duration. Preceding this attack she had been perfectly well; had missed last menstrual period by 3 weeks. There was no uterine bleeding upon admission. Exactly 2 years ago she was operated on by me for a right extra-uterine pregnancy, and the appendix was removed at that time. Since this operation, she has had a normal pregnancy and delivery. Examination showed marked tenderness in both lower quadrants, mostly on right side, with rebound tenderness. Vaginal examination showed the cervix slightly enlarged, but no bleeding; uterus moderately enlarged. On the right side a mass, the size of a closed fist, was felt—very soft and situated rather high up and in front of the uterus. Nothing felt on the left side. Blood count: Hb. 80%; WBC 14,700; polys 91%.

Diagnosis: Extra-uterine pregnancy. The strange feature was that the right tube and ovary had been removed, and the mass now present was on the right side; it was, moreover, extremely high, feeling almost like a cyst riding on top and in front of the uterus; whereas, in extra-uterine pregnancy, one invariably finds such a mass posterior to the uterus.

At operation the lower abdominal cavity was found filled with a large mass of blood and clots; uterus moderately enlarged. Spread over the fundus of the uterus anteriorly, and extending out over the right cornua, was a soft friable mass appearing almost as a pregnancy of a bicornuate uterus. A supravaginal hysterectomy was done.

Examination of the specimen showed an extra-uterine pregnancy, truly abdominal in character,

implanted on the anterior surface and right cornua of the uterus. It was easily stripped off. The interior of the uterus showed normal decidual tissue; the internal ostium of the tube was completely closed and obliterated, as well as the small interstitial portion of the right tube. Patient was discharged, cured, June 14, 1929.

This case is of extreme interest because it may be argued by some that this pregnancy occurred in possibly a small stump of the right tube which might have been left after the first extra-uterine pregnancy when a right salpingo-oöphorectomy was done, but such is not the case, inasmuch as the entire tube was removed well into the cornua of the uterus, and the edges of the broad ligament were so sutured as to completely cover over the site of the tubal opening, burying it completely within the broad ligament. This technic I have always employed, and it most certainly will prevent a reopening of the distal end of the tube at the cornual end of the uterus. Secondly, the specimen clearly showed the pregnancy implanted directly on top of the whole uterus, although at first indistinguishable from being an actual part of the uterus, it could be dissected entirely free from its attachment. There was no communication between the uterine cavity and the interstitial portion of the tube, showing clearly that this small portion of the tube was completely obliterated after the first operation, and that a pregnancy at this date within it was impossible. A primary abdominal pregnancy is universally considered as improbable, yet it is quite easy in this case to understand just how it happened. The ovum having become fertilized in the left tube, reentered the abdominal cavity, and migrated in the direction of the right tube; perhaps some pathology in the left tube prevented it from passing directly into the uterus by way of the left tube in this case. Having reached the site of the former right tube it could not enter the uterus, nor could it return easily to the left tube, having become practically lost because of the presence of numerous adhesions of the sigmoid colon to the right broad ligament, which no doubt had much to do with this unusual condition. Finding no better place to implant itself under these circumstances, it took the most available site at the right cornua where it progressed until rupture took place. The case is an example of the crossing of the fertilized ovum, which undoubtedly would have entered the uterus from the right side had this tube been present.

Discussion

Dr. D'Acierno stated that many authors doubted the existence of primary abdominal pregnancy in the human, as it does not occur in animals; Hurst, however, has given all the details confirming its presence; a harder question would be to state whether it was a primary or secondary abdominal pregnancy; inasmuch as a salpingo-oöphorectomy was performed, with peritonealization of the stump, it would seem probable to have a pregnancy from the right side; yet, unless the whole tube were removed, including the isthmus, a sinus might form and lead to the stump from the uterine cavity, or the ovum might have migrated to the site of the removed tube and become adherent to the posterolateral wall of the uterus. Among the aids to diagnosis of abdominal pregnancy, he mentioned abdominal puncture and puncture through the cul-de-sac; the latter is dangerous, as an abscess may form, or the tube may be injured and a peritonitis develop; the presence of a leukocytosis, polychromatophilia, and the sedimentation test are also helpful. Dr. Schulman said a microscopic examination of the stump and fundus would show the presence of either tubal tissue, or decidua, and tend to prove whether it was a pregnancy in the isthmal portion of the tube, or a real abdominal pregnancy. Dr. Sweeney stressed the importance of surgical intervention, regardless of what the exact condition was; he cited a case that he saw at autopsy, of a patient that had carried a fetus to full term, when labor pains began and gradually stopped without delivery; the patient had carried the lithopedion for 20 years. Dr. Kolbe cited the case of Dr. Tweedy, of London, which was no doubt a bona fide primary abdominal pregnancy, inasmuch as the uterus had been removed. Dr. Tyndall has had the good fortune to see three of these cases; in one he diagnosed fibroid uterus, and the patient subsequently kept losing weight, ran a septic temperature, became anemic, and the pelvic mass grew larger, so that pelvic abscess was next diagnosed; at operation, a colpotomy, amniotic fluid and the presence of fetal parts revealed the condition; this patient recovered, the pregnancy having lasted about 3 months; she was operated upon 8 months later for the removal of a goiter. Dr. Luippold was first called in to see this patient who said that while shopping in New York, she suddenly felt pain in the lower abdomen, as if something had burst; she was able to reach home by taxi and ferry, where she went to bed in mild shock, abscribing her symptoms to indigestion; she was given a small dose of morphin; about 9 p. m. she felt much worse and was in more decided shock; from her previous and present history and signs, extra-uterine pregnancy was again diagnosed, and she was ordered to the hospital; at operation the specimen looked like a perforated uterus in situ; section showed a liberal margin of endometrium, so uniform that it was difficult to imagine that it had been disturbed. Patient was 3 weeks overdue, and there was not enough increase in the size of the uterus to warrant a diagnosis beyond the second month. Dr. Klaus drew a diagram showing how, in the previous operation, the stump of the tube was buried in the broad ligament, and the relation of the mass to the site of the removed tube. The specimen showed that trophoblasts had eaten out a cavity in the outer wall of the uterus; it is interesting to note that this patient had one ectopic, then a normal, pregnancy; finally this abdominal pregnancy, showing that an ectopic may occur on one side, then repeat itself on the other side.

Pyloroplasty for Duodenal Ulcer

Dr. Klaus.—A man, age 35, was admitted to hospital January 2, 1929, with history of gastric symptoms of 7 years' duration, epigastric pain radiating into the back during this entire time with occasional periods of remission. Pains came on shortly after eating, of a burning character, associated with acid eructations. Vomited occasionally, some blood at one time. Symptoms much worse lately, and operation was advised at a New York hospital. Appendectomy done 12 years ago. Examination revealed considerable tenderness over right upper rectus muscle. Gastro-intestinal roentgenograms showed dilated stomach, the greater curvature reaching the intercristal line. Pylorus defective; 30% gastric retention after 6 hours.

Roentgenographic diagnosis: Pyloric senosis. Blood and urine normal. Gastric analysis: Free HCl 30; total acid 106; blood positive. Microscopic examination showed excess of starch gran-

ules, few WBC and RBC. Clinical diagnosis: Duodenal ulcer with partial stenosis.

Operation disclosed an old healed ulcer on anterior wall of duodenum, just beyond the pyloric ring, with partial stenosis. The case seemed an ideal one for pyloroplasty, whereby the ulcer could be excised and the pylorus reconstructed, thus giving a large opening and sufficient drainage of the stomach without materially changing the physiology or anatomy, as would occur in gastro-enterostomy or pylorectomy. The Horsley operation was done, making an incision 3 inches long, beginning 2 inches above the pylorus and extending downward 1 inch on the duodenum. Ulcer was excised, incision closed, and pylorus reconstructed by suturing the ends of this incision and converting the original longitudinal incision into a transverse one.

The operation is much easier technically than a Finney pyloroplasty, but can be done only where the ulcer is favorably located, and the duodenum and stomach mobile enough to allow of suturing. It has the advantages of removing the pathologic condition and obstruction without any great distortion of the function or anatomy of the stomach. By division of the pyloric sphincter it gives excellent drainage of the stomach and prevents any spasm of this muscle. Even if the ulcer lies posterior and cannot be excised, division of the sphincter will effect a cure by a paralysis of this muscle along the same principle as in treatment of fissure in ano, which in reality is an ulcer in the anal ring and often cannot be cured till the anal sphincter is paralyzed and contraction prevented till the ulcer is healed. This feature in the Horsley operation alone is an important factor.

Since his discharge from hospial, patient has been on a careful and selected diet, and at this date feels quite well. Epigastric pain and discomfort have entirely disappeared. He is still somewhat neurotic from having suffered for so many years, but the operation has given complete relief from symptoms.

Discussion

Dr. Lange commended the good results obtained from the Horsley operation; a posterior gastro-enterostomy would have probably given the same result. Dr. Sweeney stated that this case was an example of chronic duodenal ulcer which is amenable to various types of operations with good likelihood of cure; when confronted with such an ulcer on opening up the abdomen, the surgeon must select that type of operation which in his judgment is the most suitable. Dr. Tyndall asked about the condition of the gall-bladder, as it is believed by many that affections of the appendix, gall-bladder and stomach are actually a continuation of the same condition; he stressed the importance of a postoperative diet, which was adhered to rigidly in this case, whereas the surgeon often gets enthusiastic over the operation proper, and pays little or no attention to postoperative diet and manner of living; if these things are watched for at least a year after operation, there would be fewer "recurrences". Dr. Pearlstein called attention to the fact that in this pyloroplasty of J. Shelton Horsley, the normal physiology of the peristaltic waves is maintained, whereas in a gastro-enterostomy a marginal ulcer often results. Dr. Klaus referred to several important national discussions on the subject of operative treatment of ulcer, in which no general concord was reached as to the best method; hence the conclusion that the surgeon must select whatever operation is compatible with the case; even though a gastro-enterostomy is easy to perform, continuous vomiting may follow postoperatively, due to the disturbance of physiology; also, there is the possibility of formation of marginal ulcers; he cited several cases in the hospital where vomiting followed gastro-enterostomy and continued even after an entero-enterostomy.

Banti's Disease

Dr. Broder.—A woman of 40 was admitted April 28, 1929, with chief complaint of vomiting blood; expired April 30, 1929. April 4, 1929, 2 hours after supper, patient suddenly vomited about half a glass full of blood and continued to vomit small amounts throughout the night. Took rhubarb and soda next morning and vomiting seemed to have ceased. She remained in bed all day on the 27th of that month, taking milk for nourishment; did not vomit at all that day. Next day she came to the hospital on the advice of her physician. A few hours after admission patient began to vomit small amounts of dark colored blood. Appetite had been good; no foods disagreed with her. Bowel movements regular; last few dark in color, almost tarry.

Patient had malaria 20 years ago. Has had frequent sore throat and swollen glands of the neck for about 15 years. Was told she had spleen trouble about 13 years ago and a laparotomy was performed at that time; no organs were removed. About 13 years ago she was given x-ray treatment for enlarged spleen at the Post Graduate Hospital. Since then she has been fairly comfortable, no abdominal discomfort, and for the past 4 years she has done daily clerical work. Menstrual cycle normal.

The positive physical findings were a very marked degree of anemia, with all the signs of acute severe hemorrhage. Conjunctivas and skin extremely pale; respirations rapid and shallow; pulse rapid and thready; teeth in very poor condition; large patches of x-ray burns over the lower chest and upper abdomen. Spleen enormously enlarged, extending about 4 inches below the costal margin and mesially to the umbilicus.

Laboratory findings: Blood count: Hb. 45%; RBC 2,390,000; WBC 23,100; polys 86%; lymphs. 11%; monos, and trans. 3%; a few myelocytes. Platelet count 370,000. Bleeding time 2 minutes. Coagulation time 5 minutes. Urine negative. Blood pressure 130/58.

On April 29, patient received a transfusion of 500 c.c. whole blood. She died April 30.

Autopsy report. Anatomical diagnosis: Pulmonary edema; Cirrhosis of liver, hypertrophic; Splenomegally (cirrhosis); Hemorrhagic gastro-enteritis.

Spleen pale and greatly enlarged, extending downward and to the right to the level of the umbilicus; about 10 inches in width; adhesions extend to anterior abdominal wall. Section presents irregular white striations; firm consistency. Microscopic section shows fibrosis and large deposits of blood pigment. The lower margin of the liver is found about 2 fingers' breadth below the costal margin; it is round and ill defined; external surface pale. Section shows the bile capillaries to be dilated. There is evidence of some amyloid degeneration and of moderate cirrhosis. Some passive congestion is present. The veins in the mucosa of the lower part of the stomach and of the entire small intestine are varicose and present evidence of thrombosis.

Banti's disease is characterized by splenomegally, anemia, leukopenia, tendency to gastric hemor-

rhage and, in the later stages, by cirrhotic changes in the liver. The leukocytosis in this case is accounted for by the hematemesis at the time of admission. The duration of the disease is not unusual. A number of cases have been reported with a duration of over 10 years. The disease may exist for years without any symptoms other than the inconvenience caused by distention of the abdomen. The adhesions found at autopsy corresponding to the site of x-ray treatment indicate the damage that can be done by excessively deep radiation.

Discussion

Dr. Luippold stated that this case was a long-standing affair without any definite etiology, with enlargement of the spleen, with a latent cirrhosis of the liver, marked hemorrhages of the skin, mucous membranes and alimentary tract, so that it presented all the features of a text-book case; diagnosis was made easy by means of the long history, and by a process of exclusion. Dr. Pearlstein asked if the spleen was enlarged first, as the disease is primarily a fibrosis of the spleen, probably due to a toxin, with the syndrome known as Banti's disease as the end picture; when seen last, the patient probably had both spleen and liver involved, and died from cirrhosis; syphilis and tuberculosis also must be kept in mind. Dr. Sweeney delivered this patient in 1925, and noticed at this time a much enlarged spleen; some time later an exploratory laparotomy was performed; in 1925 the case was diagnosed as leukemia, and patient received x-ray therapy at the Post Graduate Hospital, New York City, the mass becoming smaller; autopsy disclosed an extremely small left kidney, presumably the result of the deep x-ray therapy.

Clinical Conference of Bayonne Hospital

Maurice Shapiro, M.D., Acting Secretary

The regular monthly meeting of the Bayonne Clinical Conference of the Bayonne Hospital was held June 3, 1929, at 9:30 p. m., at the Bayonne Hospital, with Dr. Brooke acting as chairman; Dr. Shapiro, acting secretary. Minutes of the previous meeting were read and approved.

Dr. Weiss reported the following cases:

Case 1. Male, colored, aged 39, in hospital from April 19 to May 17. Chief complaints: pain in chest, cough, temperature 103°, progressive weakness. For the past 2 weeks pain is aggravated by dry cough. During the first few days no physical signs in chest, later developed signs of dry pleurisy, followed by fluid. X-ray examination revealed fluid in chest. Daily examinations of sputum until May 11 were negative for tuberculosis; on May 11 positive tubercle bacillus found. Patient was tapped and large amount of jelly-like fluid removed. Following the tapping physical signs of tuberculosis were found. X-ray examination taken after fluid was removed showed active tuberculosis in both lungs. Patient improved under treatment and was discharged June 3.

Case 2. Female, white, aged 60. Chief complaint: "Sick for a long time." History of diabetes of 4 years' duration. Was treated in Mt. Sinai and put on a diabetic diet, which was kept up until 1 year ago. For the past 4 months patient has complained of frequent urination, edema of ankles, and marked anemia. In going over the case there was the questionable diagnosis—was it malignancy or diabetes? X-ray examination revealed carcinoma of the pylorus. Patient was taken off the diet and given forced feeding to overcome her anemia. The blood sugar at that time was 160 milligrams.

Cases 3 and 4. Two cases of epidemic meningitis in the same family, brother and sister. Girl, 18 years old, sick 6 days, temperature up to 103°, headache, opisthotonos and Kernig sign. Spinal tap showed meningococcus plus 4. Patient was given serum, and for several days repeated tapping followed by administration of serum.

Brother, 14 years old, became ill May 27, temperature 103°, moderate opisthotonos, Kernig positive. He was not so ill as his sister. Spinal tap positive for meningococcus. Patient has been receiving daily injections of serum and shows marked improvement. Dr. Brooke brought up the question of keeping meningitic cases in the general hospital and as to the danger of carriers. General suggestions on this subject brought out an opinion that the patients should if possible be sent to the isolation hospital or else, when in the general hospital, should be isolated from wards, have special nurses assigned and before discharging the patient a thorough investigation should be made so as to eliminate carriers.

Case 5. Male, 43 years old, came to the hospital complaining of pain when swallowing and vomiting; one week duration. Dr. Marshak when on service made a diagnosis of malignancy of the esophagus and mediastinum. Patient died 4 days after admission. X-ray examination showed contraction of the esophagus at the sixth dorsal vertebra with a widening and irregularity of the esophagus above that point.

Case 6. Male, white, 52 years old. Principal complaints: hoarseness; pain on breathing; swelling of throat with bloody expectoration in morning cough; shortness of breath; loss of weight, about 20 pounds in 4 months. Cervical glands on right side enlarged, with definite mass in throat, which seemed to come from the thyroid and adherent to trachea and larynx. Esophagus was edematous. Intubation was done. Patient died in 24 hours.

Case 7 Female, colored, aged 36; brought to hospital May 20 in a moribund condition. Physical signs of generalized tuberculosis. X-ray examination revealed trachea and heart adherent. Patient lived 9 days after admission.

Case 8. Boy, white, aged 14, admitted to the hospital with a temperature of 105°, no other physical signs except the temperature. Patient seemed to carry the temperature well. Blood examination was negative. Widal and malaria were negative. After 5 days patient began to show signs of simple pneumonia, right mid lobe, which was verified by x-ray examination. On seventh day temperature came down by crisis. Patient made an uneventful recovery.

Dr. Brooke reported on 4 cases:

Case 1. A woman, aged 32. History of dysmenorrhea and persistent bleeding. Bimanual examination revealed nothing. Blood picture was negative. Patient was dilated, curetted and scraped. Reported negative by the laboratory. This condition continued for several months and it was then decided to operate. Operation revealed carcinoma of the uterus and some involvement of the intestines and omentum. Uterus removed; decided not to remove any of the bowel. Since operation the patient has im-

proved and is now under deep x-ray treatment. Will report progress at a later meeting.

Case 2. A woman, white, 48 years old. Typical history of a fibroid uterus of several years' duration, descending sciatic pain of left leg with edema. At operation found large fibroid uterus, which was removed. Two weeks post-operative patient was relieved of pain and the edema.

Case 3. A white woman, 67 years old. Chief complaint was prolapse of uterus. Considering her age and general physical condition, patient was a poor operative risk. A Menge's pessary was inserted. Dr. Brooke said that if the perineum is in good condition one may expect a good result from this type of pessary. Remove bimonthly; douche every day.

Case 4. Male, 67 years old. Chief complaint: For several years testes were enlarged and painful. At operation fluid was found in both testes. In the left, however, the milk-like fluid was suggestive of malignancy. Removed both testes; on the fourth day patient had a partial paralysis on right side of body, which has since cleared up. Dr. Brooke thought the paralysis due to an embolus from the operative region. During the discussion it was stressed that operation in this region in the male was frequently followed by embolism, which might be fatal.

Dr. Weiss reported a gall-bladder case:

A white woman, 41 years old. Patient states that 2 years ago she was suddenly seized with severe sharp, stabbing pain in right upper quadrant radiating to right scapular region. The patient appears well nourished, suffering excruciating pain, difficult breathing, nausea and vomiting. Vomitus consisted of muco tenacious bile stained material. Pain and vomiting relieved by morphin. Examination next day showed marked tenderness in gall-bladder region with rigidity. Following day gradually increasing jaundice, persistent for 2 weeks, which subsided somewhat under treatment. Pain relieved but tenderness persisted in gall-bladder region. Some loss in weight at this time. Patient had been free from pain for 3 months, when she was suddenly seized with another severe attack as before, this time becoming jaundiced immediately, accompanied by nausea and vomiting. Morphin gave little relief. Stools, clay colored; urine, bile stained; constipation, belching and flatulence continued. Patient was in bed for 5 weeks; jaundice gradually cleared up but not entirely. After this last attack she could not attend to her usual home duties, being in constant fear of another attack. Admitted to the hospital March 1. Treatment was instituted by the medical service to overcome the jaundice. As soon as this had subsided a trifle it was noticed that the patient suffered from another attack of biliary colic; daily attacks, though occasionally several days would elapse. Preparations were made for operation: Van den Bergh's Test report: 4 mgms. bilirubin per 100 c.c. of serum, coagulation time 7 minutes. Patient received intravenous injections of calcium chlorid 2 days previous to operation, clotting time reduced to 2 minutes. Operation by Dr. Brooke. The usual incision; gall-bladder found small, adherent to all surrounding structures. Gall-bladder was freed from all adhesions and removed; contained many small stones. One stone the size of a marble was embedded in the common bile duct; stone removed. Patient was drained and made an uneventful recovery. Discharged May 6.

Dr. Brooke in speaking of this case said that he had used a Deaver tube; left it in 3 weeks; tube closed off for 10 hours in every 24 hours If there is any pancreatic involvement tube should be left in longer. In such cases there is always a secondary hepatitis, which takes months to clear up. Dr. Brooke also showed the gall-bladder and stones removed and Dr. Larkey the x-ray plates which delineated the stones.

Dr. Finger, speaking for Dr. Brooke, stated that the preoperative care in jaundice is a very important feature. At the Mayo Clinic they found that in cases with a 9 minute clotting time about 50% were fatal, death being due to hemorrhage oozing. The administration of calcium by mouth reduces the clotting time, but was not as efficacious as the intravenous method, the intravenous method being more certain. It is their belief that calcium brings lower toxemia by combining with the bile. Dr. Opie found that large doses of carbohydrates were helpful but that calcium did more good. He also found that fat in the diet hastened a fatal outcome; when the patients were given the usual carbohydrates they did better. Both clinics advised giving large amount of fluid to prevent dehydration.

Dr. Larkey spoke on x-ray examination of the gall-bladder, question of giving the dye or not. He stated that if a plate showed stones without dye being administrated the stones contained calcium, therefore they showed up readily; in those cases in which no calcium was present the dye is necessary. The dye is used to show function of the gall-bladder. If it fills up showing the outline, there is no obstruction. A fatty meal is given and if the gall-bladder empties it is normal. Where the gall-bladder cannot be visualized after using the dye we have either one or two conditions—nonfunctioning gall-bladder or else chronic cholecystitis.

Dr. Brooke in speaking of preparation of gall-bladder cases agreed with Dr. Finger and said that during an attack no operative measures should be undertaken. Give morphin and do not operate too soon after a recent attack. When preparing for operation guard against profuse bleeding by using calcium and glucose, small transfusions, and either horse or rabbit serum. Continue the calcium and glucose if oozing is persistent.

Dr. Madaras suggested that intravenous calcium injections should be given slowly, as too quick an injection may cause reaction.

In suggesting operative procedures Dr. Finger stated that some men swabbed out the peritoneal cavity and renal pouch and that Dr. Deaver always used drains.

Dr. Brooke thought the use of suction better than swabbing and that all cases should be drained. Gauze was of little value as a drain; rubber dam was better. Drain because of ooze from gall-bladder attachment to liver and common bile duct.

Dr. Meltzer said that bleeding in jaundice cases is due to the blood calcium combining with bile salts. With calcium or glucose there is a reduction in clotting time. In hepatitis there is prevention of fibrinogen formation and hence hemorrhage from ooze. He thinks that operation should be done early, before there is liver damage, as calcium given in late cases is of no use.

The routine explanation of deaths in the in-

stitution was taken up and the men on whose services death had occurred were to give a history of the case and cause of death.

Meeting adjourned at 11:30 p. m. Those present were: Drs. Brooke, Weiss, Tepper, Wiren, Marshak, Ferenezi, Higgins, Murray, Madaras, Finger, Solomon, Fifer, Shapiro, Harvey, Klugman, Meltzer, Morganstein, Donohoe, Dolganos, Larkey, Maturi, Forman, Feinberg, Frank; interns, and Mr. Mass.

MERCER COUNTY

A Dunbar Hutchinson, M.D., Reporter

The Mercer County Society met in Princeton, June 20, at 4 p. m., Dr. Seely, the president, in the chair.

Dr. J. Bennett Morrison, Recording Secretary of the State Society, gave a most interesting recapitulation of the subject of "Revision of the By-Laws". Dr. Morrison emphasized the necessity of revision, and made an earnest appeal for thorough study of the subject by the membership of each society, before any decided action should be taken.

The Antidiphtheria Campaign, Extension of Medical work, Post-Graduate work and other important functions of the State Society were thoroughly discussed by Dr. Morrison, especially the election of delegates and the selection of a Board of Trustees.

After the discussion of these subjects, Dr. Schauffler moved that a committee be appointed to confer with the State Committee relative to the revision, and Drs. Scammell, Haggerty and Schauffler were selected.

Dinner was served at 6 o'clock, about 50 of the members remaining for this very enjoyable part of the program.

MIDDLESEX COUNTY

Wm. C. Wilentz, M.D., Secretary

The regular monthly meeting of the Middlesex County Medical Society was held on June 19, at 9 p. m., at the Perth Amboy City Hospital, with Dr. Spencer presiding.

Dr. Henry, Jr., reported that the Rutgers College authorities looked upon the formation of a pathologic society in the county most favorably.

The Membership Committee acted favorably upon the applications of Dr. Witmer, of Metuchen, and Dr. Swift, of Perth Amboy.

Dr. Sidney Weintraub, Chief of the Gastro-Intestinal Clinic of Cornell Medical College, gave a paper on "Fluoroscopic Examinations of Gastric and Duodenal Lesions, and Their Value". Following his talk, he gave a practical demonstration of these lesions through the medium of a fluoroscope, examining about 15 patients provided by Dr. Henry, Jr. After this demonstration, Dr. Henry called upon the following men to discuss the paper:

Dr. Edward Klein, of Perth Amboy, complimented Dr. Weintraub on his excellent paper and stated that although he regarded the fluoroscope as a valuable instrument, yet he felt that no case of gastric or duodenal lesion ought to be operated upon without making an x-ray series.

Dr. Wm. Klein, of New Brunswick, stated that an x-ray series of these lesions is far more conclusive and accurate.

Dr. Gutman, of New Brunswick, felt that both methods ought to be utilized.

Dr. F. C. Henry, Jr., agreed with Dr. Weintraub that the fluoroscope was the ideal method of diagnosing these conditions.

Dr. Silk, of Perth Amboy, agreed with Dr. Weintraub.

Dr. Weintraub, in closing the discussion, emphasized the fact that the surgeons on the staffs of some of the leading hospitals in New York City rely entirely on the fluoroscopic findings. He claims that they make correct diagnoses in 94% of cases at their clinics.

A motion was made by Dr. Klein, and seconded, that a vote of thanks be extended to Dr. Weintraub for his excellent paper and demonstration.

(Dr. Weintraub's paper will be published in a later issue of the Journal.)

SOMERSET COUNTY

Lancelot Ely, M.D., Reporter

The regular meeting of the Somerset County Medical Society was held at the Nurses' Home, Somerset Hospital, Somerville, on Thursday, June 20.

Routine business was transacted, after which Dr. Walter T. Dannreuther, of New York City, gave a most instructive talk on "Retrodisplacement of the Uterus", illustrated by lantern slides. The speaker told in detail of the congenital type of displacement and of the pathologic type, with causes, symptoms and treatment of each, and gave instructions for the use of various kinds of pessaries. The discussion was helpful, and the few who were present felt repaid for attending.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter

Despite the tropical heat wave which had prevailed for several days, a goodly number attended the quarterly meeting of the society, held in the ball-room of the Winfield Scott Hotel, in Elizabeth, on the evening of July 10, Dr. A. F. VanHorn, of Plainfield, presiding.

Coats and vests were conspicuous by their absence, while many electric fans afforded additional comfort. Much of the usual routine business was dispensed with.

The guest speaker was Dr. Howard W. Potter, Clinical Professor of Psychiatry at Columbia University, who chose as his interesting topic, "Behavior Problems in Children", which paper we hope to obtain for publication in a later issue of the Journal.

A buffet cold lunch brought to a pleasant close one of the briefest sessions of the Society.

CIVILIZATION AND AMERICAN MEDICINE

A malignant attack upon American medicine has been made by an anonymous doctor in a book entitled "Civilization in the United States".

Of the author of this attack it is said, "As an American physician he has gained distinction in the field of medical research, but for obvious reasons desires to have his name withheld."

After one has read the chapter it is easy to see the reasons he has withheld his name.

It is hard to believe that anyone who knows the least bit about the part played by the American physician can have written the statements, "From time immemorial the doctor has been an object of respect and awe by the generality of mankind. In spite of his pretension to scientific attainment, many vestiges of his former priesthood remain, and this melange of scientist and priest has produced curious contradictions and absurdities."

He based his idea of the combination of scientist and priest on the fact that the physician lends a helping hand in an effort to raise a human brother from the depths of physical degradation to the heights of happiness through physical well-being.

Since we cannot agree with him that this form of priesthood is beneath the dignity of the doctor we may dismiss that particular criticism. He has probably not felt the need of uplift in the presence of the ravages of disease and death in his own family.

In a recent address by Edmunds of Johns Hopkins University, the statement was made that the object of a university was to teach, to do research and to serve.

Knowledge of the past history of the American physician is proof to all that service has been his motto.

Wistar, of Philadephia, a great anatomist, served so well that a great research institution bears witness to his priesthood of service.

Has the American physician contributed to our civilizatlion by following the precepts of Hippocrates so recently reasserted by Dr. Edmunds in his conception of a modern university to teach, to search and to serve, or is the criticism of this anonymous doctor justified? "A survey of the present condition of American medical education offers little hope for a higher intellectual status of the medical profession or of any fundamental tendency to turn medicine as a whole from a melange of religious ritual, more or less accurate folk-lore, and commercial cunning toward the rarer heights of the applied sciences."

This anonymous doctor being an American must labor under the impression that the mass intelligence which has permitted our country to rise to its present outstanding position has contributed only the substratum of intelligence to the medical profession. Why then has this intellectually dwarfed group been able to follow progressive steps made in other countries? Is this all due to commercial cunning? It cannot be folk-lore.

Is anesthesia a contribution to civilization? Webster says "Civilization applies to human society, and designates an advanced state of material and social well being."

With this definition before us we cannot fail to appreciate that Crawford W. Long, an obscure Georgia physician, by utilizing ether in 1842 for surgical purposes made a distinct contribution to civilization.

Was that folk-lore? Was it commercial cunning?

Morton, a dentist, of Boston, first used ether in 1846 on a patient operated at Massachusetts General Hospital by Dr. J. C. Warren. Dr. Warren said, "You have seen something that will go around the world."

Will the untold thousands operated since that time deny the civilizing effect of the physician in this instance?

Without, Pasteur (French), Lister (English), and Long and Morton (American), surgery would not be today what it is; and yet an anonymous gentlemen hurls unwarranted stigmatizing calumnies at our profession.

The world waited for Oliver Wendell Holmes to coin the terms anesthesia and anesthetic.

Has American civilization suffered because of the lethargy of the profession since the initial work of Long and Morton? What has our distinguished critic to say of the work of Gwathmey and later the original research of Luckhardt which has given the world ethylene, the latest and to date the safest anesthetic.

In the Hall of Fame of Gynecology the American surgeons form a conspicuous group.

In spite of the "commercial cunning" thrust we look with pride upon the achievement of Ephraim McDowell, hailed by all "the Father of Ovariotomy".

Oliver Wendell Holmes wrote in answer to an invitation to be present at the dedication of the McDowell Monument: "Among the births of the century this (ovariotomy) is a twin with myself. I thank God that the other twin will long outlive me and my memory, carrying the light of life into the shadows of impending doom, the message of hope into the dark realm of despair; opening the prison to them that are bound and giving them beauty for ashes, the beauty of a new-born existence even of youthful maternity in place of the ashes for which the inevitable urn seemed already waiting. I am glad that this great achievement is to be thus publicly claimed for American surgery."

In the Frauenklinik in Berlin, there is only one ornament in the amphitheatre and that is a medallion of McDowell.

What effect this contribution has had on civilization we look to our esteemed critic for an answer. The balance of the world has already answered.

J. Marion Sims, Emmet and Kelly following in the foot-steps of the immortal Ephraim McDowell have contributed to the comfort and well-being of woman-kind sufficient to justify their place among immortals of the world.

It is generally admitted that our own esteemed colleague, Professor Rudolph Matas, has contributed to the advancement of vascular surgery more than anyone for centuries. The most malicious would not consider this in the light that this anonymous critic has spoken. The work of Matas will stand as an everlasting monument to American genius.

The late Dr. Halsted has left his impression on civilization not only through his work in this

field, but in the development of modern aseptic technic.

Can it be said that it is not a distinct civilizing influence when the disciples of great leaders like Halsted, Matas, Murphy and Coley, inspired by their teachings, influence the thought and lives of so many in this and other lands?

Brophy, Villary Blair, Davis and Thompson, of Galveston, in the field of plastic surgery have contributed real advances to human knowledge.

Scarlet fever we hope will lose its terrors through the efforts of the Doctors Dick.

The plasmodium of malaria has been cultivated by Bass.

Yellow fever has almost become extinct through the work of Reed, Carroll and Lazar.

Gorgas, an American physician, was able through the application of sanitation to make possible the construction of the Panama Canal. Had foreign money and brain failed to accomplish the same feat?

Men could not live in the Canal Zone until a modest, sincere, intellectual giant in the person of an American physician applied scientific sanitation. Was that folk-lore or ritual?

Flexner has produced poliomyelitis experimentally.

Crile, through his laboratory work, has given the world the foundation stone on which has been built our present conception of shock. Whatever differences in opinion have arisen since his original enunciation it is to the credit of American medicine that the idea originated in the brain of an American doctor.

Henderson, Seelig, Cannon, Ewing and many others have contributed along this line.

The research laboratories of the Rockefeller Institute, Johns Hopkins University, Tulane and many other similar institutions bear witness that the statements of the critic are unworthy of publication.

Are our research laboratories adding daily to our knowledge? Are our great institutions such as the Amreican College of Surgeons adding to our civilization? Is it "commercial cunning" which encourages men to work to bring comfort where pain and suffering are entrenched?

Publishers should be encouraged to have material analyzed that their publication will reflect credit on them.

Our critic would do well to consider Studley's comment, "People who lead busy lives never find time to have hysterics."

Some Recent Medical Progress

It seems that work on scarlet fever—real valuable, practical work—by Dick and Dick and by Dochez and others, has occupied the center of the stage in medical investigation for the past year or more and it may truly be written down as the best advance in medical progress for 1924. Work on the definite streptococcus, making of the tests, successful immunization and, now, claims of a practical and successful serum, analogous to the anti-diphtheritic, followed in such quick succession, the announcements of which almost made one dizzy.

Now comes Prof. Collip, of the University of Alberta, Ontario, Canada, one of the men who assisted Banting in perfecting insulin; he has isolated a definite hormone from the parathyroids, which is effective only by needle (like insulin) and which causes immediate cessation of tetany in para-thyroidectomized dogs; this hormone has been found to have a wonderful effect on the calcium metabolism in the body; we do not know as yet just what we may expect but we predict that, before another year passes, this will be perfected and its use will supplant that of the unknown-value, variable and indefinite parathyroid preparations for use by mouth—just as insulin has supplanted the use of pancreatic hormones (so-called) for oral administration. Some of the diseases in which it may prove of incalculable value are: asthma, hayfever, tetany, sprue, pernicious anemia, pellagra.

With these advances fresh in mind, we may truly ask: "What next?"—From New Orleans Medical and Surgical Journal.

AROUND THE CORNER

Around the corner I have a friend,
In this great city that has no end;
Yet days go by and weeks rush on,
And before I know it a year is gone,
And I never see my old friend's face;
For Life is a swift and terrible race.
He knows I like him just as well
As in the days when I rang his bell
And he rang mine. We were younger then;
And now we are busy, tired men—
Tired with playing a foolish game;
Tired with trying to make a name.
"Tomorrow," I say, "I will call on Jim,
Just to show that I'm thinking of him."
But tomorrow comes—and tomorrow goes;
And the distance between us grows and grows.
Around the corner!—yet miles away. . . .
"Here's a telegram, sir." "Jim died today!"
And that's what we get—and deserve in the end—
Around the corner, a vanished friend.

—Charles Hanson Towne.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Andrew F. McBride.....Paterson
First Vice-President, George N. J. Sommer.....Trenton
Second Vice-President, John F. Hagerty.....Newark
Third Vice-President, Paul M. Mecray.....Camden
Corresponding Sec., William J. Carrington....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Norton L. Wilson, *Chairman*.....Elizabeth
James Hunter, Jr., *Secretary*.....Westville
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
Lucius F. Donohoe.....Bayonne
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires, 1932	George H. Lathrope, Newark
Second District	" " 1931	B. S. Pollak, Secaucus
Third District	" " 1930	Martin W. Reddan, Trenton
Fourth District	" " 1929	Paul M. Mecray, Camden
Fifth District	" " 1933	J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

W. E. Darnall, Chairman.....Term expires 1929
R. K. Hollinshed..... " " 1930
Lancelot Ely..... " " 1931

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City.....Term expires 1929
J. Finley Bell, Englewood..... " " 1929
Thomas B. Lee, Camden..... " " 1930
Henry Spence, Jersey City..... " " 1930
H. Garrett Miller, Millville..... " " 1931
Harvey S. Brown, Freehold..... " " 1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty.....Term expires 1929
B. S. Pollak..... " " 1929
W. Blair Stewart..... " " 1930

Alternate Delegates

George H. Sexsmith.....Term expires 1929
Philip Marvel..... " " 1930
S. B. English..... " " 1930

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark.....Term expires 1930
Edward J. Ill, Newark..... " " 1929
J. Bennett Morrison, Newark..... Ex-officio
Ephraim R. Mulford, Burlington..... Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*.....Term expires 1933
Paul M. Mecray..... " " 1934
John Nevin..... " " 1929
B. S. Pollak..... " " 1930
H. Garrett Miller..... " " 1931
Thomas W. Harvey..... " " 1932
Elias J. Marsh, *Treasurer*..... Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton.....Term expires 1931
William G. Schauffler, Princeton..... " " 1929
William D. Olmstead, Atlantic City..... " " 1930
Ephraim R. Mulford, Burlington..... Ex-officio
J. Bennett Morrison, Newark..... Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Fo..man.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
Ralph K. Hollinshed.....Westville
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
James S. Green.....Elizabeth
Edward Guion.....Northfield
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
George H. Lathrope.....Morristown
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
B. C. McMahon.....Morristown
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark
George T. Tracy.....Beverly
Clarence W. Way.....Sea Isle City

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.

MOUNTAIN VALLEY WATER *from* HOT SPRINGS *Arkansas*

The Doctor's Preference for a Non-Irritating Diuretic

Mildly Alkaline -:- Natural -:- Pleasant Tasting

Mountain Valley can be consumed in quantity and relished. It is easily assimilated and a palatable agent for flushing all four of the emunctories.

Newark, N. J.
92 Central Ave.
MARket 8890

Mountain Valley Water Company
Distributing Branches in all Principal Cities

New York, N. Y.
142 E. 25th St.
GRAmercy 1666

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103. Act of Oct. 3, 1917, authorized July 29, 1918

THE N.Y. ACADEMY OF MEDICINE
SEP 13 1929
LIBRARY

Vol. XXVI., No. 9. Orange, N. J., September, 1929 Subscription, $3.00 Per Year
Single Copies, 30 Cents

CONTENTS

ORIGINAL ARTICLES— Page

Extra-Uterine Pregnancy Immediate or Delayed Operation—Dr. Max Danzis 607

The Medical Commission for Maternal Welfare of Essex County—Dr. Arthur W. Bingham 615

Determination and Propagation of Sex Before Birth or at Will—Dr. James V. Jaso 617

Undulant Fever in Northern New Jersey: Report of 3 Cases—Dr. Frederick P. Lee and Anna I. van Saun 621

ORIGINAL ARTICLES— Page

The Incidence of Infection with Intestinal Protozoa in New Jersey—David Causey, Ph.D. 624

Congenital Lymphangiectatic Edema—Dr. Joseph H. Marcus 627

Blood Sedimentation in Tuberculosis—Drs. Nathan Blumberg and Sydney M. Harberg 628

The Treatment of Arteriosclerotic Heart Disease—Dr. Harold E. B. Pardee 630

Continued on page VI.

ACHIEVEMENTS

Compound Syrup of
Calcreose
Alcohol 5 Per Cent
Each fluid ounce Represents:
Alcohol—24 Mins.
Chloroform Approximately 3 Mins.
Calcreose Solution 160 Mins.
(Equivalent to 10 mins. of creosote)
Wild Cherry Bark 20 grs.
Peppermint Aromatics and Syrup q. s.
Tasty, effective, does not nauseate.

Tablets
Calcreose
4 grains
Each tablet contains 2 grains of pure creosote combined with hydrated calcium oxide.

which meet your therapeutic requirements!

WHEN Maltbie made Calcreose available for the treatment of Bronchitis, Tuberculosis, Intestinal and Urinary Affections, the medical profession was given a product through which the full therapeutic effect of creosote could be secured even though the patient may have a sensitive stomach.

Calcreose is a loose chemical combination of pure creosote and hydrated calcium oxide. The creosote is slowly released from Calcreose and this provides a prolonged and effective action which is very helpful. Leading druggists carry Tablets Calcreose 4 grs. and Compound Syrup of Calcreose for prescription purposes. Samples gladly mailed to Physicians.

Maltbie Chemical Company, Newark, New Jersey

MALTBIE Calcreose

"But Doctor, You don't treat many *sick* babies."

To the woman pictured in this interview, it somehow seemed that in a case of artificial feeding, intestinal disturbances were an inevitable necessity—that these were dread diseases which in some vague, mysterious manner, baffled all efforts to prevent and whose correction lay in the drastic administration of drugs.

MEAD'S DEXTRI-MALTOSE
Samples on Request

This remark was made by a mother, with her infant in her arms, as she discussed her own case with her physician. Paradoxically enough, because her physician was a successful infant feeder, he gave promise to lose standing in her estimation.

The Doctor's reply was illuminating to this mother—*"We don't treat many sick babies because we feed more well babies properly."*

So modern feeding practice seeks first to preserve the infant's health rather than correct nutritional disturbances. And in this it is eminently successful. What this patient did not realize was that the physician needed her confidence and co-operation.

The dangers of carbohydrate fermentation are greatly minimized, weight gains with sound body turgor are easier to secure by the use of Mead's Dextri-Maltose in fresh cow's milk or lactic-acid milk mixtures.

It is readily assimilated by the infant and is supplied the doctor with different salt contents. No. 1 with sodium chloride 2% for normal cases, No. 2, salt free and No. 3 with 3% Potassium Bicarbonate for constipated infants.

MEAD JOHNSON & COMPANY
EVANSVILLE, INDIANA U. S. A.

INFANT DIET MATERIALS EXCLUSIVELY

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 9 ORANGE, N. J., SEPTEMBER, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

EXTRA-UTERINE PREGNANCY IMMEDIATE OR DELAYED OPERATION

Max Danzis, M.D., F.A.C.S.,
Attending Surgeon, Beth Israel Hospital,
Newark, N. J.

This paper is based upon a study of 54 cases of ectopic pregnancy that have come under the author's observation during the past 9 years. Thirty-four of the patients were operated on at the Newark Beth Israel Hospital, and a detailed statistical study is available from our records, which will be given in detail. In the remaining 20 cases included in this group, we were only able to obtain our percentages of recovery. No other definite date of statistical value could be tabulated from the clinical records.. We shall therefore make use of the 34 cases only, in tabulating our chart for comparative statistics.

We have also selected 6 of our hospitals in Newark, from which we have made a detailed tabulation of all ectopic pregnancies admitted during the years 1921-1926, inclusive. The total number of cases included in this group is 224. Thirty of the author's personal cases are also included in this second group.

When should one operate upon a patient suffering from ruptured tubal pregnancy? This, like any other surgical problem, has given considerable concern to a great many members of the surgical profession. That the question has evoked keen interest is indicated by the frequency with which articles pertaining to this subject make their appearance in medical journals.

Arguments for and against early or delayed operation seem at times to assume a tone bordering almost on the controversial. Some authors advocate delay in every case of ruptured ectopic associated with symptoms of shock and marked exsanguination until these symptoms have subsided and a distinct reaction has set in. Others, again, urge immediate operation in every case as soon as diagnosis has been established. Statistical proof is frequently brought forward by the respective writers of each group.

My own interest in this subject was aroused during the last year or two, not only by a personal desire to be satisfied in my own mind as to the exact mode of procedure in a given case, but also through the frequency with which the question was put to me by interns at the hospital whenever an operation for ruptured ectopic gestation was to take place. The usual question was, "Do you operate immediately as soon as the diagnosis is made? Why not wait until the shock has subsided?" A large proportion of these young medical men seem to have been under the impression that under no circumstances should one operate immediately upon a patient suffering from a ruptured ectopic.

There seems to have been a lack of real understanding as to what constitutes definite indication for immediate or delayed operation. The criteria by which one should be guided in deciding upon the time of operation were not definitely defined in their minds.

The author's personal experience in ruptured ectopic gestation has been rather a for-

tunate one. It is based upon a fairly large number of operated cases of various types, which entitles him to form a definite opinion as to the time of operation advisable in a given case. Immediate operation, as soon as the diagnosis of ruptured ectopic was made, was the course adopted by the writer and he has no hesitancy in saying that he has never had any occasion to regret it. In the 54 cases operated by the writer and considered in this series, there is no record of operative mortality as the result of postoperative shock due to exsanguination. It was frequently noted that patients who have come to the operating room in a very pronounced state of shock (marked pallor, rapid and feeble pulse and sighing respiration) have reacted rapidly as soon as they were put under anesthesia and a quick operation performed. The only 2 deaths resulting from ruptured ectopic that came under our observation and which are not included in this series, were those of patients who were not operated on. One death took place while the patient was being admitted to the hospital, in the receiving room. Autopsy showed ruptured ectopic pregnancy and a large amount of blood in the peritoneal cavity; death due to exsanguination. History obtained from the family showed that the patient was sick at least 24 hours previous to admission, and either the condition was undiagnosed or patient refused to come to the hospital earlier. In the second case, death took place while the patient was being examined at her home. The clinical history obtained was typical of ruptured ectopic—missed period, sudden onset of sharp pain the evening before and collapse. Patient remained in profound shock through the night without any medical attention. Death took place the following morning, after the ambulance had been called to take her to the hospital. Autopsy could not be obtained. There is no doubt that the cause of death was ruptured ectopic.

Personal impressions gained from repeated experiences usually result in definite convictions. I realize that the result obtained in this group may be explained by some as having an element of good luck as a factor, but that would be purely supposition. The fact is that a number of the cases included in this group were in a fairly advanced state of shock when brought to the operating room. Some of them required stimulation, but in most of the cases reaction set in immediately after the patient was anesthetized, and the subsequent course was uneventful.

In my own series there are 3 cases of ectopic gestation in which rupture occurred during or immediately after examination at my office. This afforded opportunity to watch carefully as to what actually takes place immediately after rupture, and in every one of these 3 cases the marked pallor that is always present in this condition, appeared immediately after onset of pain, in spite of the fact that very little blood was lost and the pulse rate was still full in volume and normal in rate. In one case in particular the pulse continued between 72 and 80 for 45 minutes during the time that the patient waited for the ambulance. The other symptoms of shock (marked pallor, cold and clammy skin, anxious face and abdominal tenderness) were very distinctly present. I believe that the early, alarming symptoms of shock that are manifested in every ruptured tube are due more to the rupture of an intraperitoneal viscus than to the actual bleeding. The appearance of marked shock and exsanguination in the early stages is somewhat out of proportion to the actual amount of blood lost. If we can operate on the patient during this stage, before marked exsanguination takes place and before the patient's vitality and resistance to operative shock are lowered, then her chances of recovery are much better.

In one of these patients operation had to be deferred 4 hours in order to obtain permission from the husband. We failed to see any evidence of improvement during that time. The patient's pulse continued to become more rapid and smaller, and her condition at the time of operation was much worse, if anything, than during the first hour after her admission to hospital.

In looking over the literature upon this question, published during the years 1921-1925 inclusive, we find a number of important contributions comprising a report of over 1000 cases of ruptured ectopic pregnancy. These reports do not come from a limited

locality, where a certain method of procedure is apt to be adopted by those practicing within that area. They are international in scope, including many sections of the United States, Canada, England, France, and Germany. All these writers have gone into a careful analysis of their operative results and into a thorough discussion of the question of immediate versus delayed operation. All, with one exception, forcefully express themselves in favor of early surgical intervention.

E. Hempel[1] advises immediate operation on the basis that the prognosis of the operation can be estimated, but the accidents of waiting cannot be. He believes that the hemorrhage which threatens life is in the foreground, and that one cannot assume to end the condition of collapse since, without intervention, the condition of hemorrhage continues.

Charles Mayer[2], in an analysis of 26 extrauterine pregnancies, advocates immediate operation and advises intravenous injections of salt solution accompanied by blood transfusion to combat shock.

M. J. Owens[3] advocates early operation as the only safe means of dealing with this condition. He defers operation for a few hours only in those cases where the patient is in extreme shock from hemorrhage. He quotes John B. Deaver as follows: "Internal hemorrhage of the nontraumatic acute abdomen often results from a ruptured tubal pregnancy. It is well known that rupture of the fallopian tube at the uterine junction is very serious; operation cannot be done too early. A famous Philadelphia pathologist, at one time coroner's physician, was in the habit of telling his students that the cases with rupture at this point were the ones on which he operated, while rupture distal to this point, including tubal abortion, were the ones operated on by the surgeons. Where there are signs of ruptured tubal pregnancy, I always operate at once and rarely have to give, even in bad cases, an infusion of salt solution. One of the surgical principles in the presence of a bleeding vessel is to tie the vessel. I cannot understand the practice of waiting for the patient to react when she is bleeding. This is not the practice of the general surgeon but of the specialist, and I have no hesitancy in saying that the practice courts disaster."

Cotte and Patel[4], in discussing their experience in tubal abortion and the mortality associated with it, regret that the operation was delayed in some cases and attribute that mortality to the delay. In their opinion, hemorrhage by no means contra-indicates intervention.

W. B. Hendry[5], in a clinical analysis of 152 cases of ectopic gestation, followed the expectant method of treatment only in those cases where there was a possibility of error in diagnosis. Once the diagnosis was established, treatment was directed toward the stopping of hemorrhage by operative means, augmented by blood transfusion in extreme cases.

A. J. Sands[6] believes that the question of when to operate should be left to the surgeon in each individual case. His practice has always been to operate as promptly as possible following diagnosis of tubal pregnancy, whether ruptured or partially ruptured. In his experience, he has never known a patient to die as result of operation, and he cites one case where the patient died a few hours after the diagnosis was made because operation was refused.

In discussing a paper of John Osborn Polak[7], in which he advocates waiting for reaction from shock before operation, Dr. Barton Cook Hirst cites 16 cases out of a series of 167, in which the patients were operated on in the so-called tragic stage without mortality. He advocates immediate operation because we cannot always depend on reaction after internal hemorrhage, nor can we rely on its spontaneous cessation. Owing to continued hemorrhage, a half dozen deaths occurred without operation. Dr. E. A. Schumann, contrary to Dr. Polak, believes that bold stimulation together with immediate surgery offers the best chance for recovery. He operates in any case in which a heart beat can be detected. In such cases a vein is exposed and a transfusion of blood or infusion of salt solution is given while the patient is on the operating table. This plan seems to him to offer the greatest hope of success. In his experience 2 cases were lost while hoping for

the reaction which did not come. In the same discussion, Drs. John M. Fisher and E. E. Montgomery express the opinion that immediate operation should be done, even in the tragic cases.

E. M. Hawkes[8] reviewed a series of 824 cases of ectopic pregnancy, 187 of which were in various degrees of collapse. Of these 187 patients, 113 were operated upon immediately. Of the remaining 74 in which operation was delayed, 10 died from hemorrhage, unoperated upon. The mortality in the 113 consecutive cases of collapse operated upon immediately in 3 different institutions was 8.8%, while the mortality in the 74 consecutive cases of collapse with expectant treatment and deferred operation was 17%. The Medical Examiner's Office showed 21 deaths from hemorrhage in unoperated cases of ruptured ectopic pregnancy during the 4 years from 1918 to 1921 inclusive; 13 of these deaths occurred in hospitals. The Board of Health files of the Borough of Manhattan in 1921 show 20 deaths from ectopic gestation; 5 of these were due to hemorrhage in ruptured cases in which no operation was performed.

Those who advocate the conservative policy for the so-called tragic cases (and by that, I presume they refer to those cases exhibiting marked degree of shock) lay particular stress on pulse rate, blood pressure and percentage of hemoglobin. A pulse rate of over 100, a blood pressure of 90 systolic, or lower, and a hemoglobin under 50% ,are considered very poor operative risks. Operation in such a case should therefore be deferred until reaction sets in. One author advises raising the foot of the bed, morphinizing the patient, then standing by and watching for increase in blood pressure and slowing of the pulse rate before operating. "Raising the foot of the bed is contra-indicated," says another, "because, by so doing, the blood clots that accumulate at the site of rupture, sealing the bleeding vessels, are separated and fresh bleeding takes place."

Another apparently logical argument for delay is that the stage of depression may be so great in these tragic cases, that the blood forms a clot in the ruptured vessel and hemorrhage ceases. One should, therefore, wait for an increase of arterial tension before operating. This is refuted by the equally logical argument that there is no assurance that the increased arterial tension resulting from the reaction will not drive out the clot and cause a recurrence of the bleeding which may end in disaster to the patient.

As an example of the various rules for guidance laid down by some men who favor delayed operation, permit me to quote the following: (1) If the pressure continues to fall in spite of treatment, surgery is indicated. (2) When pressure reacts and reaches the maximum of 115, operation is indicated. (3) If pressure is permitted to return to normal limits, the sealing clot may be disturbed and removed; hemorrhage and shock may therefore occur. (4) A pressure that rises and then remains stationary calls for surgery. (5) Any pressure that rises and then begins to fall calls for immediate surgery.

Is there any inconsistency in some of these rules; and, if so, is it only apparent or real?

Rule 1.—If the pressure is so low that one is not justified in operating, then surely there is less justification for operating when it continues to fall. Why not stimulate by transfusion at the time of operation?

Rule 2.—If there is danger of disturbing the clot by permitting the blood pressure to return to normal, why wait until the blood pressure returns to 115? How is one to know what the patient's normal blood pressure was previous to or during the first few weeks of pregnancy? We must bear in mind that most of these women in whom ruptured ectopic takes place are somewhere between the ages of 25 and 35; their blood pressure is usually between 110 and 120, systolic, and much lower during early pregnancy.

Rules 3, 4, 5.—When a rising pressure remains stationary, operate. When it rises and then begins to fall, operate immediately. Why wait until pressure remains stationary? Who can tell when the turning point will take place? A rising blood pressure that is reaching its maximum may suddenly, without any warning, drop to a danger point. Why not operate at the first signs of reaction in the so-called desperate cases?

In the 54 patients that were operated on by the writer, the number of ruptured tubes was almost equal to that of the tubal abortions. Most of the cases with ruptured tubes showed extreme or moderate shock when admitted to hospital. Operation was performed as soon as emergency preparation was carried out. In several cases exhibiting marked symptoms of shock and exsanguination, transfusion was given as soon as the operation was started,

with surprisingly beneficial results. These patients reacted very quickly from the operation; convalescence was much smoother, and the period of hospitalization was considerably diminished. There was no mortality in this group of cases. In the 34 cases taken from the charts of the Newark Beth Israel Hospital, which are analyzed in detail, we find that 17, or 50%, showed ruptured tubes; there were 16 tubal abortions in various stages and 1 patient was operated on before rupture took place.

CLASSIFICATION OF AUTHOR'S CASES

Total number of cases		34
Ruptured tube	50%	17
Tubal abortion	47%	16
Unruptured	3%	1
Total number of deaths		0

Immediate operation was performed in 15 (44%) of the total number of cases, and operation was delayed in 19 (56%). In those cases diagnosed as ruptured tube, immediate operation was performed in 11 (65%); operation was delayed in 6 (35%). Of the 16 cases classed as tubal abortion, we find that immediate operation was performed in only 4 (25%); operation was delayed in 12 (75%).

TIME OF OPERATION

Immediate operation	44%	15
Delayed operation	56%	19
Ruptured tube		17
(a) Immediate	65%	11
(b) Delayed	35%	6
Tubal abortion		16
(a) Immediate	25%	4
(b) Delayed	75%	12
Incomplete rupture		1
(a) Immediate		0
(b) Delayed		1

Analysis shows the following causes for delay in the 6 cases of ruptured tubal pregnancy: In 3 of these cases the symptoms of marked shock were absent. Patients gave a history of a missed period and vaginal bleeding; the diagnosis of abortion was made by the family physician, and they were curetted as incomplete abortions. Several days later, symptoms returned and patients were referred to hospital for operation.

Case 4 gave a most interesting history. This patient had an attack of severe pain with associated menstrual disturbance typical of an ectopic history; diagnosed as acute appendicitis and appendix removed. No effort was evidently made to explore further. Pain continued after operation with distinct evidence of slow exsanguination. About 6 weeks later a mass became palpable in the right side, and operation disclosed an encapsulated mass covered with fibrinous adhesions adherent to broad ligament, rectum, sigmoid, etc. A distinctly formed fetus was found in the mass.

Of the 2 remaining cases in which operation was delayed, one was admitted 24 hours after symptoms of rupture had set in; operation was performed immediately after admission. In the other case, diagnosis was not definitely established for 2 days.

Delay in the tubal pregnancy case was due to the fact that the condition was either unrecognized or diagnosed as some other pelvic pathology. Two of these cases were diagnosed by the attending physicians as acute salpingitis and treated as such for several days. Three cases were diagnosed as incomplete abortions and curetted. Two were classed as unruptured ectopics and treated expectantly. Some were diagnosed as metorrhagia, subacute appendicitis, infected pelvic hematocele, and expectant treatment advised.

CLASSIFICATION OF COLLECTED CASES

Total number of cases		224
Ruptured tube	52%	116
Tubal abortion	37%	82
Unruptured	10%	23
Ovarian pregnancy	1%	3
(a) Ruptured		2
(b) Unruptured		1
Total number of deaths		11
(a) Died without operation		3
(b) Following operation		8
Operative mortality—3.6%		
Total mistaken diagnoses	22%	49

In a study of the 224 cases of ectopic pregnancy taken from the records of 6 of our hospitals, we find that 116 (52%) were classified as ruptured pregnancy, and 82 (37%) were classified as tubal abortions. In 23 (10%) operation was performed before rupture took place. Three were classed as ovarian pregnancies, of which 2 were ruptured and one unruptured. In this series we have an operative mortality of 3.6%.

Of these cases tabulated in the above chart, 120 (54%) are classified as immediate opera-

tion; 101 (46%) as delayed operation. Of the 116 cases classified as ruptured tube, operation was performed immediately in 86

TIME OF OPERATION

Immediate operation	54%	120
Delayed operation	46%	101
Ruptured tube		116
(a) Immediate	74%	86
(b) Delayed	24%	28
(c) Died without operation		2
Tubal abortion		82
(a) Immediate	33%	27
(b) Delayed	66%	54
(c) Died without operation		1
Unruptured tube		23
(a) Immediate	21%	5
(b) Delayed	79%	18
Ovarian pregnancy		3
(a) Immediate		2
(b) Delayed		1

(74%) and was delayed in 28 (24%). Two of these patients died without operation. In the 82 cases classed as tubal abortions, operation was delayed in 54 (66%) and performed immediately in 27 (33%); one death without operation.

Of the 23 cases diagnosed as unruptured tubal pregnancy, operation was delayed in 18 (79%); in 5 (21%) operation was performed immediately.

In those classed as ovarian pregnancy, operation took place immediately. These are probably the 2 cases that are given as ruptured ovarian pregnancies, and in one the operation was delayed.

ANALYSIS OF DELAYED OPERATIONS

Total number, delayed operations	45.6%	101
(a) Tubal abortion	23%	54
(b) Ruptured tube	28%	28
(c) Unruptured	18%	18
(d) Ovarian pregnancy (unruptured	1%	1
Diagnosis made—Operation delayed	8%	8
(a) Until pt. reacted from shock	4%	4
(b) Reason not charted	4%	4
Mistaken diagnoses (22% of total cases)	49%	49
(a) Tubal abortion	63%	31
(b) Ruptured tube	27%	13
(c) Unruptured	10%	5
Reason for delay not charted	43%	43
(a) Tubal abortion	48.8%	21
(b) Unruptured	30%	13
(c) Ruptured tube	21.2%	9

The total number of delayed operations in the series of 224 cases is 101. In 43 of these cases it was impossible to ascertain the causes for delay—whether it was deliberate on the part of the surgeon, waiting for shock to subside, or the result of other circumstances. Nor can the exact state of the patient's condition (pulse-rate, blood-pressure reading, blood count) at the time of operation be ascertained. This may be due either to some laxity in charting or to the extreme emergency nature of these cases. In only 4 of these 101 cases do we find that operation was delayed in order that the patient might react from the initial shock. In 49 cases (22% of total cases) delay was due to mistaken diagnosis.

Preoperative Surgical Intervention

The author's personal cases show a history of previous surgical intervention in 7 (21%) of the total 34. In the 224 collected cases, we find that 21 (10%) have undergone some previous surgical operation, either as a result of mistaken diagnosis or for diagnostic purposes; 12 were curetted for incomplete abortion, and in 9, diagnostic colpotomy was performed.

PREVIOUS SURGICAL INTERVENTION

Previous surgical intervention	21%	7
(a) Tubal abortions	19%	3
(b) Ruptured tube	24%	4
Types of operations		7
(a) Curetted for supposed incomplete abortion	86%	6
(b) Operated for supposed appendicitis followed by perforation of tube 2 weeks later	14%	1

PREOPERATIVE SURGICAL MEASURES

Total number of cases	10%	21
Curettage for incomplete abortion	6%	12
(a) Tubal abortion		8
(b) Unruptured		3
(c) Ruptured tube		1
Colpotomy for diagnosis	4%	9
(a) Tubal abortion		5
(b) Ruptured tube		3
(c) Ovarian pregnancy		1
(d) Unruptured		0

The estimation of the red cell count and hemoglobin, and also the determination of leukocytosis, were charted in 25 (74%) of the author's cases. It is interesting to note that in 77% of the cases of ruptured tubes there is distinct anemia.

The hemoglobin was 60%, or lower, and the red cell count was below 4,000,000. On the other hand, the tubal abortions show a

normal count in 73% of the cases and an anemia in only 27%. In one case of ruptured tubal pregnancy the blood count was normal before operation.

WHITE CELL COUNT

Chrated in 25 cases 74%		
Leukocytosis (over 10,000)		
Tubal Abortion		14
(a) Normal count	35.6%	5
(b) Leukocytosis	64.4%	9
Ruptured		10
(a) Normal count	10%	1
(b) Leukocytosis	90%	9
Unruptured		1
(Mild Leukocytosis 10,200)		

RED CELL COUNT

Chrated in 25 cases 74%		
Anemia—Below 4,000,000		
60% Hb. or lower		
Tubal aboriton		11
(a) Normal	73%	8
(b) Anemia	27%	3
Ruptured tube		13
(a) Normal	23%	3
(b) Anemia	77%	10
Unruptured		
(a) Normal		1

White cell count shows a distinct leukocytosis in 90% of the ruptured tube cases; normal in 10%. The percentage of leukocytosis in tubal abortion was much lower, being present in only 64.4%. In the 224 collected cases the red cell count is charted in 69 (30%). Of 44 cases operated on for ruptured tube, 40 (91%) show a very distinct anemia. Of 20 cases operated on for tubal abortion, 14 (70%) show anemia. White cell count was charted in 89 (40%) of these cases. Leukocytosis was present in 95.5% of the 44 patients operated on for ruptured tube. Of the 30 patients operated on for tubal abortion, leukocytosis was present in 23 (76.6%). The unruptured cases showed a normal count in 11 (73%) of those charted.

WHITE CELL COUNT

Charted in 89 cases 40%		
Leukocytosis—10,000 or over		
Ruptured		44
(a) Normal count	4.5%	2
(b) Leukocytosis	95.5%	42
Tubal abortion		30
(a) Normal count	23.3%	7
(b) Leukocytosis	76.6%	23
Unruptured		15
(a) Normal count	73%	11
(b) Leukocytosis	27%	4

RED CELL COUNT

Charted in 69 cases 30%		
Anemia—3,500,000 or lower		
60% Hb. or lower		
Ruptured tube		44
(a) Normal	9%	4
(b) Anemia	91%	40
Tubal abortion		20
(a) Normal	30%	6
(b) Anemia	70%	14
Unruptured		5
(a) Normal	80%	4
(b) Anemia	20%	1

Analysis of deaths in the 224 group of cases shows a total mortality of 11 (4.9%). Death occurred without operation in 3 cases included in this group; 8 patients died after operation; operative mortality, 3.6%. In 3 patients who died without operation, we find a history of rupture varying between 5 hours and 3 weeks prior to admission. In 2 of these cases, death was directly attributed to exsanguination. In one case a period of 9 hours elapsed from the time of onset of symptoms until death, and in a second case there is a history of rupture 24 hours prior to admission to hospital. Diagnosis in both of these patients was confirmed by autopsy. It is very likely that a prompt diagnosis and immediate operation might have given a favorable result. In the postoperative deaths, we find that 4 cases gave a history of rupture varying from 12 to 30 hours duration. In each case death followed soon after operation. In 3 of these cases a transfusion was given on the operating table, indicating that there must have been marked exsanguination.

ANALYSIS OF DEATHS

Total number of deaths	4.9%	11
A. Postoperative deaths	3.6%	8
1. Exsanguination and shock		4

(a) History of rupture 18 hours prior to admission. Immediate operation. Transfusion on operating table. Died 3 hours post-op.

(b) History of rupture 12 hours prior to admission. Immediate operation. Transfusion on operating table. Died 3 hours post-op.

(c) History of rupture 24 hours prior to admission. Immediate operation. No anesthesia necessary. Transfusion on operating table. Died 7 hours post-op.

(d) History of rupture 18 hours prior to admission. Delayed 12 hours in hospital. No transfusion. Died 2 hours post-op.

2. Prolonged operation 1

(a) History of rupture 15 hours prior to admission. Immediate operation. Right ovary found ruptured and bleeding. Ovary sutured, then a ruptured, bleeding tube found on left side. Patient died on table.

3. Cardiac failure 1

(a) History of rupture 10 hours prior to admission. Immediate operation. Transfusion 24 hours postoperative. Fair recovery until eighth day. Sudden cardiac collapse and death.

4. Peritonitis and ileus 2

(a) History of rupture 12 hours prior to admission. Immediate operation. Transfusion on third day. Died on third day of peritonitis.

(b) History of rupture 15 hours prior to admission. Immediate operation. No transfusion. Postoperative ileus. Enterostomy. Died from obstruction.

B. Died—no operation 3

1. History of rupture 5 hours prior to admission. Pulseless. Subnormal temperature. Clysis. Died 4 hours after admission.

2. History of rupture 24 hours prior to admission. Pulseless. Died 20 minutes after admission. Diagnosis confirmed by autopsy.

3. Sick 3 weeks at home. Died 6 hours after admission. Autopsy disclosed peritonitis, hemoperitoneum and pyosalpinx.

It seems that the operative delay in these cases, although purely the result of circumstances and not deliberate on the part of the surgeon, had no effect on the operative result. The bleeding probably continued and at no time did any favorable reaction set in. Earlier operation in these cases would probably have resulted more favorably. The 4 remaining deaths in this group cannot be attributed to shock following immediate operation in the so-called tragic cases. These patients died as a result of postoperative complications that may follow any abdominal operation.

Five deaths in unoperated ectopic pregnancy are included in this report. Two occurred in the writer's personal experience and 3 are included in the collected cases. In 4 of these cases the cause of death was definitely established by autopsy.

This clearly indicates that certain types of tubal pregnancy will have a fatal issue if not relieved by surgery. The contra-indications to immediate surgical intervention are not always well founded. In some instances they may be based upon the individual surgeon's reaction to a given case, probably the result of one or two unfavorable surgical experiences in similar cases. From a personal experience and from the statistics gathered, we are in possession of sufficient data to show that the general surgical tendency is in favor of immediate operation. Early diagnosis, immediate hospitalization, prompt and expeditious surgical intervention, stimulation at operation and transfusion in extreme cases, offer the best possible results in the treatment of ruptured ectopic pregnancy.

BIBLIOGRAPHY

1. Hempel, E.: Ruptured Ectopic Pregnancy and Treatment by Autotransfusion. Beitr. z. klin. Chir., 133:367-404, Tubing. 1925. Abs: Zentralbl. f. Gynäk., 49:407-412, Leipzic, 1925.

2. Mayer, Charles: An Analysis of Twenty-six Extra-Uterine Pregnancies. New York M. J., 198:555-557, 1923.

3. Owens, M. J.: Ectopic Pregnancy. J. Kansas Med. Soc., 1925, 25:73-77, Topeka, 1925.

4. Cotte, Patel (et. al.): Immediate or Delayed Intervention in Ruptured Extra-Uterine Pregnancy. Lyon chirurg., 18:533-540, 1921.

5. Hendry, W. B.: A Clinical Analysis of One Hundred and Fifty-two Cases of Ectopic Gestation. Tr. Am. Gynec. Soc., 1:186-191, 1925.

6. Sands, A. J.: Extra-Uterine Pregnancy. J. Oklahoma Med. Assoc., 18:30-33, Muskogee, 1925.

7. Polak, John Osborn: Observations on Ectopic Pregnancies. Am. J. Obst. & Gynec., 2:280-286, St. Louis, 1921.

8. Hawkes, E. M.: Surg., Gynec. & Obst., 36:232, Feb., 1923.

THE MEDICAL COMMISSION FOR MATERNAL WELFARE OF ESSEX COUNTY

Arthur W. Bingham, M.D.,
Newark, N. J.

The Medical Commission for Maternal Welfare, of Essex County, was organized in May, 1923, following a resolution proposed by the Public Health Committee of the Essex County Medical Society:

Whereas, The lack of an organization devoted to maternal welfare, embracing the entire county of Essex, has caused all efforts along these lines to be fragmentary, overlapping, disorganized, and not uniform in character and scope, and,

Whereas, The lack of such organized effort has been one of several factors responsible for greater maternal mortality than may be inevitable, and,

Whereas, The people everywhere are entitled to look for guidance and help in such matters to their medical advisors, who in this county are represented by the Essex County Medical Society, be it therefore resolved that,

The Essex County Medical Society, mindful of its duties to protect public as well as individual health, and determined to live up to the great traditions of unselfish service to the communities in which its members practice the healing art, does hereby approve and direct the organization of a body which shall be devoted to maternal welfare in this county, and in which the Essex County Medical Society shall be officially represented by delegates appointed by its President, who may collaborate with other men or women active or interested in public health work.

And the Essex County Medical Society further directs:

That this body shall be known as the Medical Commission for Maternal Welfare in Essex County.

And it further directs that this commission constitute itself as a separate entity, work out its own constitution and by-laws, and obtain its own charter, so that it may be unhampered in its activities by any official ties to the Essex County Medical Society, save by the fact that its members shall sit as delegates of the Essex County Medical Society.

And it further directs that this commission shall not have the power to make any decisions legally binding on the Essex County Medical Society or any other component part of the commission, but that the commission may exert power by virtue of the wisdom of its recommendations and decisions.

And the Essex County Medical Society specifically directs that this Commission for Maternal Welfare be speedily organized, so that it may proceed to coördinate efforts of the various public and private agencies engaged in maternal welfare work; that it establish standards for prenatal, delivery and postpartum care; that it keep the public informed by periodically published statistics collected under its auspices; that it concentrate its efforts to increase the efficiency of health departments of the component parts of the County of Essex; and, finally, that it aid in any other way the cause of maternal welfare.

A subsequent motion was passed at the same meeting, directing the President to appoint delegates for a term of 1, 2, and 3 years, so that two-thirds of the membership of the commission are carried over each year.

There are 12 active members and also an associate membership of about 50 at present, made up of physicians, health officers and others interested in maternal welfare. The purpose of the commission is the promotion of maternal welfare: (1) By raising the standard of obstetric practice in the community; (2) coördinating all existing agencies for the care of maternity cases; and (3) teaching the public the vital importance of adequate maternity care.

The work of the commission has been done largely through committees, which report at the regular meetings held every other month. There are 6 of these committees: (a) Prenatal; (b) hospital; (c) follow-up; (d) education; (e) statistic; (f) financial.

(1) The Prenatal Committee has attempted to establish systematic work in all sections of Essex County. In Newark, the prenatal work has been separated from the Child Hygiene Department and made a distinct department with headquarters at the City Hospital. A system has been developed whereby the prenatal clinics of the various hospitals, and the municipal prenatal centers as well as the nurses in the field, work together as one organization. This has also been done recently in Montclair and vicinity; while in the Oranges it has been carried on for several years, and clinics have recently been established in Belleville and Irvington; thus covering practically the entire county. A "prenatal" card has been printed and distributed to every member of the Essex County Medical Society. These cards are also obtainable from health departments of the various cities and towns in the county and could be used more generally than they are, to the advantage of both physicians and patients. Literature on prenatal care was also distributed to all physicians.

(2) The Hospital Committee has en-

deavored to coördinate and standardize the work of the various hospitals having obstetric departments. Uniform record sheets have been devised for use by all hospitals in the county. These are simple but sufficiently comprehensive to cover the important facts needed for a permanent record. They have been passed on favorably by the American College of Surgeons and are being used by all of the hospitals in Essex County recognized by that college. These record sheets are supplemented by each hospital using its own temperature chart, sheets for urinalysis and pathologic reports, and special notes.

By using the same record sheets a more uniform report can be made out at the end of the year. An annual report is requested from each hospital so that results may be compared and different methods of procedure studied, but we regret to state this report has not always been received.

The following set of rules has been submitted to each hospital for guidance of physicians in charge of obstetric cases. We hope they will be generally adopted and enforced.

Maternity Rules

Gloves must be worn for all examinations and deliveries, hands must be scrubbed for 5 minutes before putting on gloves.

Any rise in temperature of the mother, going above 101°, and either staying there or reasserting itself in 24 hours, will be called an infection and patient is to be moved from Maternity Ward.

All cases of infection to be transferred from Maternity Department.

No douches or intravaginal treatments should be given in Maternity Section.

All normal babies are to be put on the regular feeding routine.

Every dose of pituitrin should be recorded, with reason for its use, and doctor must be present when it is given except in emergency.

All circumcisions must be done with strict surgical asepsis. Hands must be washed the same as for any other surgical procedure.

The obstetrician should wear a mask during delivery.

Suggestions

These suggestions are mainly for the younger men on the staff and are meant entirely for the welfare of patient, doctor and Maternity Department.

Do as few vaginal or rectal examinations as possible.

Consultation by one of the Obstetric Staff will be gladly given in any case. We strongly recommend that consultation be held before all abnormal cases which would require cesarean, high or medium forceps, version or breech delivery, in a primipara or in any case of prolonged labor.

(3) The Follow-Up Committee is stressing the need of more attention to following up after-care of the patient and noting end-results. All cases of maternal death are reported to this committee by the local health department and a questionnaire is then sent to the attending physician requesting further information as to character of the labor and delivery, prenatal facts, and any other information which will provide material for research as to cause of maternal death.

(4) The Educational Committee has had papers by the members published in the state medical journal and has occasionally distributed reprints to physicians of the county. It has endeavored to get prominent obstetricians to address the physicians, and has urged the various medical societies in the county to devote at least one evening during the year to discussion of obstetrics.

(5) The Statistics Committee has submitted reports tabulating the deaths by various types and causes, making an effort to differentiate between deaths from abortion and deaths from childbirth—which are at present classified together as maternal deaths—as well as deaths occurring from medical diseases during pregnancy. When this is accomplished, it will be possible to give a more accurate statement regarding maternal mortality.

(6) The Finance Committee has audited the bills and turned them over to the county society.

The commission feels it has made only a small beginning in this important work but with the aid of members of the county society

it hopes that results will sometime prove its efforts worth-while.

In conclusion, the commission wishes to make a plea for better obstetric care in Essex County: By urging every patient to report to her physician early in pregnancy (before 3 months); by giving more attention to prenatal care especially in regulation of diet and exercise to prevent toxemia and overweight; by caring for all primiparas, and as many others as possible, in well equipped maternity hospitals; by taking more pains with even the normal case, especially regarding sterile precautions; by calling for assistance early when complications arise.

DETERMINATION AND PROPAGATION OF SEX BEFORE BIRTH OR AT WILL

James V. Jaso, M.D.,
Newark, N. J.

In writing this paper I wish to call attention to some personal observations in obstetric practice, concerning the possible determination of sex before birth and at will. The question of sex determination has occupied the minds of many well-known men and a great deal has been written on the subject. My own observations have been independent of these writers and were made before I had looked up the literature on the subject. Therefore, what I have recorded may not be new but may help to confirm or add to but will not detract from their findings.

For practical purposes, I have divided the year into odd and even months. For example, January, March and May are considered as odd months because they are the first, third and fifth months of the year; February, April and June as even months because they are the second, fourth and sixth months.

Rule: With a woman pregnant for the first time, the sex of this child is undeterminable, because it is impossible to state which ovary was functioning at the time of her last menstrual period; but the sex of her subsequent pregnancies, and possibly of pregnancies to be conceived, can readily be determined from a careful history of the woman's menstrual cycle.

Application of the rule: If a woman pregnant for the first time gave birth to a boy, and her last menstrual period occurred in August, which is the eighth month of the year, and therefore an even month, from this data the sex of the subsequent pregnancies can be determined before birth or at will; providing nothing has occurred which might upset the menstrual cycle in the interval between pregnancies. Therefore, if the next pregnancy should occur in an odd month, say March, which is the third month of the year, instead of an even month as was the date of the last menstrual period, the result would be a girl. For instance, Mrs. K. gave birth to a baby girl on September 24, 1925. Tracing back 9 months plus 7 days, or 280 days, we find that the ovulation fertilized took place in the early part of the third week of December; so, December being for her a female ovulation gave rise on September 24 to a baby girl. The next child, a boy, was born on December 19, 1927; therefore, 40 weeks back, makes the ovulation in March. December was a female ovulation and an even month; as March is an odd month, a male was born.

The cases tabulated are a further evidence of the application of this rule and apparent accuracy of the theory.

Theories

(1) The Hippocratic theory or doctrine was that the right ovary produces boys; the left ovary produces girls. Therefore, women desiring male offspring should lie during coitus on the right side; those wishing females on the left. This doctrine, with the advent of surgery and better knowledge of the mechanism of impregnation, was disproved.

(2) A heart beat of 120 to 140 indicates males; from 140 up indicates females. This theory has been abandoned because of variability of the heart-beats.

(3) In current months, it is believed that the females are heterozygous, that is, having maleness recessives and give rise to equal contingents of male producing and female

producing ova. Male months are homozygous as regards sex, being without femaleness factors and give rise only to male producing spermatozoa; that when a male producing spermatozoön fertilizes a male producing ovum the result is of course a male, but when a male producing spermatozoön fertilizes a female producing ovum the result is a female; femaleness being by hypothesis the dominant over maleness. If this Mendelian interpretation of sex inheritance be confirmed, it will probably be found that in the same type the male is heterozygous and in the other the female; though a third possibly is that both sexes are heterozygous or sex hybrids.

(4) That some animals produce 2 kinds of eggs, and that large ova give rise to females, while small ova give rise to males.

(5) The younger the mother the more girls; while ovum of young mother and sperm of old father give rise to males.

(6) Ova fertilized soon after ovulation give rise to females.

(7) That the sex of the offspring is that of the more vigorous parent.

(8) That sex is settled by the relative condition of the germ cells at the time of fertilization, and some ova are so constitutionally predetermined that they develop into females while others will develop into males only.

(9) Late marriages tend to increase the proportion of boys. The same is true after great wars.

(10) What are called true twins in the human race result from the division of an ovum into 2 independently developing cells, and are always of the same sex. Twins arising from 2 distinct ova developing simultaneously are often of different sex.

(11) *Accessory chromosomes* might be a sex determinant. This theory was first suggested by M. Clung and later elaborated by Professor E. B. Wilson. The theory is that the cells of a female organism contain 2 accessory chromosomes and so all ova before maturation, that is before reduction has taken place, contain them both. When reduction takes place, all ova will contain one accessory chromosome. On the other hand, cells in the male organism only contain one accessory chromosome, including those cells destined to produce sperms. When reduction takes place, half of the resulting cells will contain the accessory chromosome, half will not; therefore, only half of the sperm will contain the accessory chromosome. If the sperm containing accessory chromosome fuses with an ovum, the result will be a cell with 2 accessory chromosomes and a female will be produced. If a sperm without an accessory chromosome fertilizes an ovum, a male will be produced.

(12) At present it is believed that by certain conjunction of the sex chromosomes, the sex of the embryo is impressed upon it at the moment of junction of the male and female pronuclei.

(13) *Doncaster's theory*: (a) That sex is determined in embryonic life. (b) That sex is fixed before fertilization. (c) That sex is fixed by the act of fertilization itself.

(14) *Mrs. Laura A. Calhoun's theory*: (a) That the sex of the embryo in man and in higher animals is determined in the ovary from which the ovum in question is developed. (b) In normal females, the ovary of the right side yields ova which on fertilization develop males while the left side is potentially for females. (c) That the ova are met by the sperm at or near the ovary. (d) The direction of the fertilizing sperm must depend largely on the law of gravitation, the fluid which contains them, and their own locomotion and the ciliary movements of the epithelium lining the passage.

(15) *Rumley Dawson's theory*: That sex determination is dependent upon a monthly periodic ovulation, alternating male and female ova and that this period is manifested only by the monthly menstruation. He can forecast after the first born, the sex of the child to be born and also possibly determine the sex of the next child to be conceived.

(16) *Otto Schoner's theory*: Determination of sex by sensitivity to pressure of the concerned corpus luteum verum which exists during the whole of pregnancy. Up to the writing of this paper, I have had only a limited experience with his method and I will have something to say at some future date. However, I agree with him in part, that is, in

the two to one or three to one relation which I classify as atypical cases.

(17) *Schenk's theory*: That ovulation is alternate month per month and yearly. None of these theories thus far have been verified. Professor Schenk states or gives the impression that ovulation not only alternates monthly but yearly, due to the fact that a woman menstruates every 28 days, thus making not 12 but 13 periods yearly. However, while my theory and observation agree in part, I cannot wholly agree with him.

Example—Comparison of Theories with My Own

Case 1. A woman menstruated for the last time March 14, 1924, and should have been delivered about December 21, but because of eclampsia a cesarean was done on October 14 and a baby girl was born. A year later, March 12, 1925, she again became pregnant and on November 21 gave birth to an 8 months' premature baby girl by cesarean, which according to Professor Schenk was a male month; thus a failure of his rule and a correct determination by my theory.

Case 2. Menstruated for the last time March 30 (borderline case), 1924, and on January 8, 1925, gave birth to a full-time baby boy. Three years later she again became pregnant in March and according to my theory should have given birth to a boy, which she did on December 14, 1927; according to Schenk's theory she should have given birth to a girl.

Case 3. Became pregnant for first time in November (last period Nov. 14, 1919); premature labor June, 1920, with delivery of a girl (7 mos.). After 3 years and 5 months, she became pregnant the second time in latter part of April, 1922, and gave birth on Januray 29, 1923, to a baby girl (borderline case). After 5 years she became pregnant for the third time, in March, 1927, and on December 21, 1927, gave birth to a baby girl, as predicted by me. Since her previous birth was a borderline case, that is, we don't know if ovulation and fertilization took place in the latter part of April or the early part of May, my theory is a failure but according to Schenk, she should have given birth to a girl, as she did.

Case 4. Became pregnant for the first time in December, 1924, and on Sepember 24, 1925, gave birth to a full-time baby girl. Eighteen months later became pregnant again in March, 1927, and on December 19, gave birth to a full-time baby boy as predicted by me because December being the twelfth month of the year, that is, an even month yielded a girl, March being the third month of the year and therefore an odd month, yielded a boy; not in accord with Schenk's theory.

The question as to time when ovulation occurs in the human female is more or less decided today. Robert Meyers states that we can accept with certainty that ovulation and menstruation do not occur simultaneously. Aschoff's investigations established the fact that alternating ovulation is actually the normal state.

Against this theory of alternating ovulation in the ovaries may be raised the objection that women with one ovary menstruate again at 4 week intervals. Since menstruation and ovulation are intimately connected, one must accept an ovulation period of 4 weeks for the remaining ovary; from which it follows that the one ovary compensates for the other. Ovulation is not only dependent on the number or size of the follicles but, in addition, on an influence of the entire body which after the removal of one ovary releases the inhibition formerly controlling the remaining one, so that the stimulus of ovulation is again efficacious after 4 weeks. Various investigators place the time of ovulation at various times; 8, 14, 16, or 21 days after menstruation. A few facts seem to be that the union of the sperm and ovum takes place at the fimbriated end of the tube or on the surface of the ovary; that the ovum takes several days to one week to reach the uterine canal; that the sperm can be found in the uterine cavity or tube as early as 30 minutes or as late as 3½ weeks after coitus.

Human pathology has not been able to establish any sex determining effects, either for the interstitial cells of the testes or for the lutein cells of the ovary.

It may be of interest to know that it has been estimated that a human ovary at birth contains some 70,000 ova and therefore it is unlikely that any woman discharges more than 360 ova a year. From this, it seems likely that ovulation and fertilization may take place at any time. If this line of reasoning is correct, then, it follows that a follicle may rupture, expel an ovum and fertilization may take place at any time. Therefore, in borderline cases (or cases in which a woman menstruates the latter part of the month) it is difficult to say which ovary is functioning or expelling an ovum at the time of the period. It is possible that an ovum from either ovary has become fertilized, and therefore a failure in determination results, but if we take it for granted that an ovum comes from the ovary causing menstruation at the time, then my percentage of determinations is more nearly correct or accurate. In cases of failure it must be concluded that an ovum from the ovary opposite to the one causing menstruation became fertilized.

It is also a fact that a large percentage of nursing mothers become pregnant during lactation although not menstruating at the time, and they do not know that there is anything wrong or unusual with them until they are 2-3 months pregnant. I have a record of some half dozen such cases and have been led to believe that it takes about 28 days for an ovum to maturate and be expelled from the ovary. It seems evident to me that an ovum may be expelled daily from one ovary to the other but that all do not become fertilized, either from failure of sexual relations, or of the sperm penetrating the ovum, or of being killed off by the natural secretions of the birth canal, or the frigidity of the woman at the time of cohabitation.

Conclusions

(1) These observations seem to uphold the theory held by most men, that ovulation is alternate from one ovary to the other.

(2) That each ovary contains either male or female ova, or ova which have definite sex characteristics.

(3) That if the right ovary has male characteristics, impregnation of ova from this ovary will produce boys; and vice versa.

(4) It would appear as if the male elements have nothing to do with determination of sex, except to fertilize the ovum which already possesses sex characteristics and to confer to the offspring some familial traits, such as features.

(5) That fertilization takes place shortly after the last period; because, if the ovum of the past period became fertilized, it would appear as if the period of pregnancy was prolonged 2-3 weeks longer than normal.

(6) Since it is believed that ovulation takes place about 14 days after menstruation it is obvious that fertilization must occur towards the latter part of the period, which would make it appear as if the duration of pregnancy is less than 9 months.

(7) If ovulation takes place 14 days after menstruation, then fertilization of the ovum of the previous period occurs 2 or 3 weeks before the next or oncoming period and, therefore, the duration of pregnancy is more than 9 months; but, since it is understood that the ovum of the previous period dies and is washed or carried away by the oncoming or last period, it is only just to conclude that fertilization of the last or oncoming period must occur synchronous with or shortly after menstruation; or that more than 1 ovum is expelled throughout the oncoming period; or that ovulation occurs in less than 14 days after the period.

(8) That there are at least 3 types of women: (a) Regular in menstruation; (b) irregular; (c) atypical.

(9) That there are cases which I call "borderline" because if a woman begins to menstruate after the first of the month we know that ovulation takes place some time within the first 14 days thereafter, but if her period is toward the latter part of the month, twenty-ninth to thirty-first day of the month, we do not know from which ovary the ovum fertilized was expelled.

(10) That my observations tend to prove that ovulation alternates monthly and that sex can be determined at will if we can obtain the correct information and distinguish the types under which the woman belongs.

(11) Of the cases I have tabulated there are 298 births from 82 mothers. Of these there are 240 correct determinations, or 80.55%; correct but borderline cases, 39, or 13.08%; failure of borderline cases, 9, or 3.02%; absolute failures, 10, or 3.35%.

So that I may not be misunderstood, I have adopted a rule for the sake of uniformity, which is, that fertilization takes place some time within the first 7 days after menstruation. If I add my borderline to my regular case my percentage would be increased to 93.63% of correct determinations.

The failures apparently result from the fact that I had to calculate the date of the last periods; with first-hand information in all cases the percentage of failures would be somewhat reduced.

UNDULANT FEVER IN NORTHERN NEW JERSEY; Report of 3 Cases

Frederick P. Lee, M.D.,
and
Anna I. van Saun, Bact.,
Paterson, N. J.

Within the past 5 years another public health problem has come to the notice of physicians, health officers and laboratories. Undulant fever, once known as Malta fever and thought to be transmitted only by goat's milk, has been found to be communicated also by milk of cows infected with Brucella melitensis, variety abortus, the organism that causes contagious abortion in cattle. Another variant, the porcine strain, is disseminated by hogs and has also been responsible for some cases of undulant fever, chiefly among employees of packing houses where hogs' carcasses are handled.

The pioneer work of Evans[1], of the Hygienic Laboratory in Washington, was responsible for the correlation of caprine, bovine and porcine strains of Brucella melitensis and paved the way for recognition of the many cases of undulant fever now being found. The first case ever reported of human infection with the abortus variety of Brucella melitensis was found in Baltimore in 1924[2]. So little is known by physicians concerning this infection that nearly every case of it has been diagnosed as some other disease, for it is only through laboratory tests that a correct diagnosis can be made and then it is not always possible to identify every case of undulant fever. A specimen of blood from every case of febrile disease where the diagnosis is in doubt should be submitted to the laboratory.

In a recent article, by Hardy[3], on undulant fever occurring in Iowa, the clinical findings in 125 cases are grouped and the conclusions are most instructive. Of paramount interest to residents of northern New Jersey are 3 cases recently discovered in and near Paterson.

The first case was that of a boy 14 years of age, a resident of Hawthorne, a small borough near Paterson. The patient came down on March first of the present year with an illness of a typhoid-like character. He experienced a feeling of malaise but was not ill enough to be in bed. He also complained of pains and aches all over, and on March 4 had his first chill at 8 p. m., followed by profuse sweating and a temperature of 102°. On March 5 and 6 his temperature fell to 100.4°. On March 7 he had a second chill and a temperature of 101° followed by slight sweating; March 9 another chill with a temperature of 106.° His temperature ranged from normal to 105° between March 11 and 14, when he had his fourth chill a 4 p. m. followed by slight sweating. March 15 he had another chill with a temperature of 106°. From March 17 to 20 the temperature was normal and during the entire period the patient never appeared very ill. A curious feature of this case which has also been noted by other observers of undulant fever, was the fact that the patient gave no indication much of the time of the height of his temperature save through the thermometric reading. Even when his temperature was high his skin seemed cool and he wished to be up and around, his chief complaints being those of weariness and a moderate amount of pain

throughout the body. After March 20 his temperature was practically normal with the exception of every third or fourth day when it reached 100° at 8:00 p. m.

The patient's physician had made a tentative diagnosis of typhoid fever or malaria but extensive laboratory tests were negative for both these infections.

On March 15 a specimen of blood was submitted to the Division of Laboratories of the Paterson Board of Health, at our suggestion, in order that a macroscopic tube agglutination test for undulant fever might be made. A blood culture was also submitted at the same time. The serum failed to agglutinate with organisms of the enteric disease group but gave a typical agglutination with a culture of Brucella melitensis-abortus through a dilution of 1:1280. The case was therefore regarded as one of undulant fever. An organism morphologically typical of Brucella melitensis-abortus was found in the blood culture through microscopic examination though we have not yet been able to isolate it, as it is exceedingly difficult to cultivate.

On inquiry it was found that the boy had been in the habit of drinking large quantities of raw milk obtained from a herd of cows, one of which was found to have aborted frequently. The serum from this cow also gave an agglutination with Brucella melitensis-abortus through 1:1280, thus giving pretty conclusive evidence of the source of the patient's infection. The remainder of the laboratory work on this case is still incomplete and will be reported later.

The second case was that of a middle aged woman, a resident of Paterson, who had been ill for several months with an infection the nature of which it had been impossible to determine, though an extensive laboratory investigation had been carried on and several physicians had been seen in consultation.

The patient, who was a teacher, had spent the month of August 1928, on Cape Cod. During September she felt unusually well but on the first of October experienced a feeling of malaise with great drowsiness, headache, joint pains, pharyngitis and other symptoms of a beginning infection. On October 5 she went to bed and from that time to the present has run a high evening temperature with chills and sweating, though during the month of March a remission of about 3 weeks was noted. Temperature has ranged from normal to 106° with the typical peaks and valleys of an undulant fever. Her illness has continued, with a few remissions, for 5 months. Among the outstanding symptoms are those of great weakness, daily rise in evening temperature, profuse sweats and obstinate constipation. A persistent cough was present through the early part of her illness. The patient, though improving, still experiences a recurrence of the characteristic symptoms of undulant fever. On March 23 a specimen of her blood was submitted to the City Laboratory for the usual tests. The serum was negative for the enteric diseases but an agglutination was obtained with 2 cultures of the Brucella melitensis-abortus group in a dilution of 1:320 with one culture and through 1:160 with the other. The test showed a typical pro-agglutinoid zone in the lower dilutions, frequently found in melitensis infections, which in this case may have been due to the late stage of the disease.

This case we also considered one of undulant fever, but thus far we have been unable to determine the avenue of infection. The patient did not drink milk to any extent, though the family with whom she lived used raw milk. No other cases have developed, so far as we know, either in her family or among the guests at the summer hotel at which she stayed while on Cape Cod. The patient ate ice-cream in moderation during the hot weather and she has occasionally eaten cheese but this has always been of the American type. The raw milk supply is still being investigated. Owing to the late stage of the disease it was not considered worth while to carry on cultural work.

The third case is that of a woman 23 years of age residing in Haledon, a small borough near Paterson. The patient had recently returned to her home in Haledon from a town in New York State where she was said to have been employed in a milk chocolate factory since November 1928. She had lived, while in New York State, with an aunt whose several children seemed to be always sickly,

as the patient expressed it, "feverish". The patient, about 6 weeks before her return to Haledon, had been running a high afternoon temperature and had returned to her home in New Jersey because of her illness. She had, when seen by the physician who brought the case to our attention, a rapidly undulating temperature, many chills and drenching sweats and other typical symptoms of undulant fever. On April 12 we found her serum to be negative for organisms of the enteric disease group but giving a complete agglutination through a dilution of 1:320 with our cultures of Brucella melitensis-abortus. This case we also reported as one of undulant fever.

A representative of the Division of Laboratories of the New York State Department of Health, at Albany, was communicated with and informed us that another case of undulant fever had been discovered about 7 miles from the town in question, though no cases had been reported from the town itself. Further work is to be done on this case and a more complete report will be given later.

We have found very little in the literature relative to specific treatment for undulant fever. Mention is made by Cazalas[4], in an article in the Paris Médical, of a case of undulant fever which resisted all the commonly used forms of treatment for 8 months: "The patient was finally cured in a few days by intradermal and intramuscular injections of the filtrate from a 15 day old bouillon culture of Brucella melitensis (Burnet's 'melitin') followed by subcutaneous injections of anti-melitococcic vaccine."

Gage and Gregory[5] mention the treatment of a case with mercurochrome.

It would seem, from a partial study of reported cases of undulant fever, of which there are more than 1000 to date, that no part of the United States can be said to be free from the disease. Though most of the cases reported in the literature seem to be in the West, a number have also been reported from New York, Pennsylvania and Connecticut. The 3 cases here reported are said by the New Jersey State Department of Health officials to be the first reported to them from this state.

It may be of interest, in connection with this presentation of cases of undulant fever, to note the possibility of the presence of tularemia where the clinical evidence warrants it. Symptoms in the latter disease are much like those of undulant fever save that there is often a history of having handled rabbits or other wild animals, and usually an inflamed point of inoculation together with glandular involvement. The possible presence of this infection should always be borne in mind.

We would like to bring to the attention of physicians the possible responsibility of Brucella melitensis-abortus for cases of human abortion. It has been said that 1 out of every 6 human pregnancies ends in abortion. One instance of a human abortion in which Brucella melitensis-abortus was found is reported by Evans[6].

Summary

Three cases of undulant fever are reported from the vicinity of Paterson, Passaic County. All 3 cases presented at least 4 of the classical symptoms of undulant fever. All patients complained of great weakness and drenching sweats and all had the typical undulating temperature. An agglutination with the patient's sera and with 2 strains of Brucella melitensis-abortus was obtained in dilutions ranging from 1:160 to 1:1280. An agglutination in 1:80 has been considered evidence of undulant fever by most diagnosticians where the clinical symptoms confirm the laboratory findings.

In conclusion, we wish to thank Drs. Tuers, Neer, Sandt and Cremens, of Paterson, for clinical histories of the cases reported and for their kind coöperation. Thanks are also due to Miss Brown and Miss Freeman of the laboratory staff for assistance rendered in the agglutination tests.

BIBLIOGRAPHY

1. Evans, A. C.: J. Infect. Dis., 23:354, 1918.

2. Keefer, C. S.: Bull. Johns Hopkins Hosp., 35:6, 1924.

3. Hardy, A. V.: J. A. M. A., 92:853, 1929.

4. Cazalas, X.: Paris Médical, 2:161, 1928. Abs. J. A. M. A., 91:1754, 1928.

5. Gage, E. E., and Gregory, D. A.: J. A. M. A., 87:848, 1926.

6. Evans, A. C.: Undulant Fever Symposium, A. P. H. A. Rep., 1929.

THE INCIDENCE OF INFECTION WITH INTESTINAL PROTOZOA IN NEW JERSEY*

DAVID CAUSEY, Ph.D.,
Department of Zoölogy, University of Arkansas

The possible rôle of the various protozoa found as intestinal protozoa in man with respect to various more or less obscure intestinal disturbances, and the undoubted pathogenic effect of one (*Endameba dysenteriæ*, or *E. histolytica*) has led to considerable investigation as to their relative abundance. Boeck and Stiles (1923) in their comprehensive report review the literature of these investigations, and it is not repeated here. In their report on the examination of 8029 people they found the following incidence:

Endameba dysenteriæ	4.1%
Endameba coli	19.6%
Endolimax nana	13.2%
Iodameba buetschlii	5.0%
Giardia enterica	6.5%
Chilomastix mesnili	3.1%
Trichomonas hominis	0.06%

Although material for examination was obtained from a major portion of the United States, apparently no specimens were obtained from New Jersey. The present report deals exclusively with specimens from New Jersey. It is a pleasure to acknowledge the kindness and interest of Dr. Henry A. Cotton, director of the New Jersey State Hospital, who made possible this investigation.

The present report is based on an examination of incoming patients at the New Jersey State Hospital, at Trenton, during 1926-28. As a part of the routine examination of each patient a series of fecal smears was made, fixed in hot Schaudinn's fluid, stained in iron hematoxylin and forwarded for diagnosis. An attempt was made to secure one sample daily for 6 consecutive days for the purposes of diagnosis. This was not possible in all cases. Although no diagnosis was made from the fresh material, it was examined by hospital technicians and when active flagellates were found, this was reported and 3 smears made and stained, instead of the usual 1, in order to facilitate the finding of *Trichomonas hominis* in stained material. In spite of these additional slides it was rarely possible to find *T. hominis* in the prepared slides and the percentage reported is undoubtedly less than that actually present.

The following data are based on those patients in whom a definite identification of the protozoa was possible. In all cases where for various reasons, chiefly staining difficulties, an identification was not possible a second series was obtained when possible. This was not always accomplished and the actual cases of infection with both ameba and flagellates were more numerous than those which were identified.

During the investigation, 681 patients were examined, with a total of 3725 slides, exclusive of all duplicates. This gave an average examination of 5.5 slides per patient, the individual number of slides per patient ranging from 1 to 21. A limited number of patients (75) were reëxamined for one or more series.

TABLE I

Summary of Examinations

Number of patients examined	681
Number of examinations	3725
Average number of examinations per patient	5.5
Number of examinations, original series	3234
Number of patients reëxamined	75
Number of examinations, repeated series	491

The results (Table II) show that of the group as a whole approximately 1 out of 5 harbored some intestinal protozoan. Over half of these infections were with amebæ alone, while the mixed infections of amebæ and flagellates were nearly as numerous as those of flagellates only. There seems little question that generally the amebic infections in man are far higher than the flagellate infections.

TABLE II

Infections with Protozoa

Patients with some type of protozoa	151=22.1%
Patients with amebæ only	100=14.7%
Patients with flagellates only	29= 4.2%
Patients with amebæ and flagellates	22= 3.2%

The incidence of infection of the whole group shows a lower percentage of infection than that to be expected on a basis of the assumption that 6 examinations give an ap-

*Research Paper No. 130, Journal Series, University of Arkansas.

proximately perfect diagnosis of the protozoa present. Aside from the personal element in such work various factors influence the findings; variation in quality of prepared slides, the relative size and abundance of the protozoa possibly present, etc. The present report includes only positive cases of infection, uncertain infections being checked when possible by additional material or not included in the data. The incidence of infection is shown in Table III.

TABLE III.

Incidence of Infection (all data)

Endameba dysenteriæ	3.5%
Endameba coli	5.4%
Councilmania lafleuri	10.7%
Endolimax nana	3.7%
Iodameba buetschlii	1.1%
Giardia enterica	3.5%
Chilomastix mesnili	3.7%
Trichomonas hominis	0.8%

Becker (1926) reports the incidence with parasitic protozoa for 103 patients from the same institution. He made 2 fresh examinations from each stool, one with normal saline and the other with diluted Lugol's solution. One stool was examined from each patient. In view of the assumption often made that this method of diagnosis from smears is not as reliable as that made from hematoxylin stained smears, his incidence of infection and that for the first 103 patients in the writer's series are given for comparison (Table IV). It is evident that in the hands of a careful worker the diagnosis based on fresh smears is not greatly inferior to that obtained by the slower method of using hematoxylin stained smears. The most marked difference, with *E. coli,* is due to Dr. Becker presumably including with that species those forms which the writer separates as *C. lafleuri.*

TABLE IV

Fresh vs. Hematoxylin Stained Smears

Number of patients in each series 103

Species	Fresh Smears (Becker)	Hematoxylin Stained Smears (Causey)
Endameba dysenteriæ	2	4
Endameba coli	38	6
Councilmania lafleuri	0	15
Endolimax nana	2	4
Iodameba buetschlii	1	2
Giardia enterica	2	6
Chilomastix mesnili	5	6
Trichomonas hominis	2	2

The work of Dobell (1917), Carter, Mackinnon, Matthews and Smith (1917) and subsequent investigators has indicated the increasingly higher incidences of infection to be obtained with repeated examinations. In the present survey 11% of the patients were reexamined for various reasons. This reëxamination of so small a percentage gave a definite increase in the incidence of the whole group as indicated in Table V.

TABLE V

Effect of Reëxamination—Whole Group

Number of patients examined, one series 681
Average number of examinations per series 4.8
Number of patients reëxamined ... 75 or 11%
Average number of examinations per series 6.5

Species	Original Examination	Increase by Re-examination	Total
E. dysenteriæ	2.2%	1.3%	3.5%
E. coli	4.7%	0.7%	5.4%
C. lafleuri	8.8%	1.9%	10.7%
E. nana	3.0%	0.7%	3.7%
I. buetschlii	0.8%	0.3%	1.1%
G. enterica	3.5%	0.0%	3.5%
C. mesnili	2.3%	1.4%	3.7%
T. hominis	0.7%	0.1%	0.8%

It is evident that in general the larger forms are more accurately diagnosed in an original series than are the smaller and more readily overlooked species. That a reëxamination of 11% of the whole group increased the total incidence for *E. dysenteriæ* 1.3% is indicative of the value of repeated examinations as a routine measure. When only the patients who were reëxamined are considered, the same general rise in incidence is observed (Table VI).

TABLE VI.

Incidence Among Patients Reëxamined

Number of patients reëxamined 75
Average number of examinations, original series 4.9
Average number of examinations, repeated series 6.5

Species	Incidence Original series	Incidence Repeated series
E. dysenteriæ	10.6%	17.4%
E. coli	13.3%	6.1%
C. lafleuri	22.6%	22.6%
E. nana	5.3%	5.3%
I. buetschlii	0	1.3%
G. enterica	18.6%	9.3%
C. mesnili	4.0%	10.6%
T. hominis	4.0%	4.0%

There appears to be no sexual difference with respect to the incidence of infection with intestinal protozoa. Although female patients

were more numerous than male patients a practically identical higher infection was found (Table VII).

TABLE VII

Incidence and Sex of Patients

Number of patients examined	681
Number of male patients examined	299=44%
Number of female patients examined	382=56%
Number of patients with protozoan infections	151
Number of male patients with protozoan infections	64=42%
Number of female patients with protozoan infections	87=58%

Boeck and Stiles (1923) showed that when age groups of 5-19 years and 20-102 years were compared, that the younger persons had the higher infection. The present data (Table VIII) do not include sufficient young people to make a similar comparison. The majority of patients here considered fall into the older group.

TABLE VIII

Age vs. Incidence of Infection

Number of patients with protozoan infection, 151
Minimum age 10
Maximum age 82

Age group	Number of patients	Percentage of infection
10-19	20	13%
20-29	30	20%
30-39	39	26%
40-49	31	21%
50-59	14	9%
60-69	10	7%
70-79	3	2%
80-	1	1%
No record	3	2%

An occupational analysis of the data of the individuals found infected is unsatisfactory, particularly from the viewpoint of numbers. Table VII indicates that there is no sexual difference and accordingly this is not considered. It is obvious that the patients in a state institution are not a fair random selection of the outside population. There were, for instance, none of the professional group represented. Unskilled laborers, trade-workers, and semi-skilled workers, such as houseworkers, machinists, typists, telephone operators and farmers constituted the group. These individuals may be separated into 3 groups: (1) Those who by occupations would be likely to come in contact with raw food and its preparation for the table—housewife, domestic, housekeeper, waitress, servant; (2) those who by occupation would come in contact with soil that might harbor protozoan cysts due to fecal contamination—farmer, huckster, poultry-man, laborer; and (3) those who do not belong in groups 1 or 2. Slightly over 1/3 of all cases in which protozoan infections were found are included in Group 1, and 1/5 of all cases in Group 2. (See Table IX.) It is significant that even with so small a number of cases, ½ of all infections were in those who, because of their occupation would be exposed to some extent to fecal contamination. An example is found in *E. dysenteriæ*, where, of the 23 cases found, 12 were in patients whose occupations fall under the classification of Group 1—housewife, servant, etc. This confirms the generally accepted theory among parasitologists that protozoa are brought into the intestinal tract through some fecal contamination of the food or body of the individual.

TABLE IX

Occupation and Incidence of Infection

Group I. Those coming in contact with raw food and its preparation (housewife, etc.)	35.7%
Group II. Those coming in contact with the soil (laborers, farmers, hucksters, etc.)	20.5%
Group III. All others (school teachers, typists, etc.)	43.8%

Summary

(1) Six hundred eighty-one patients were examined for intestinal protozoa, using iron-hematoxylin stained smears, with an average of 5.5 smears per patient.

(2) The following incidence of infection was obtained:

E. dysenteriæ	3.5%
E. coli	5.4%
C. lafleuri	10.7%
E. nana	3.7%
I. buetschlii	1.1%
G. enterica	3.5%
C. mesnili	3.7%
T. hominis	0.8%

(3) The relationship of the infection to various factors is considered.

LITERATURE CITED

Boeck,, W. C., and Stiles, C. W.: Studies on various intestinal parasites (especially amebæ) of man, Hyg. Lab. Bull. No. 133.

Becker, E. R.: Detection of Intestinal Protozoan Infections by the Cultivation Method, Jour. Parasitol, 12:4:219.

Carter, H. F., Mackinnon, D. L., Matthews, J. R., and Smith, A. M.: Protozoölogic investiga-

tion of cases of dysentery conducted by the Liverpool School of Tropical Medicine (Second Report). Ann. Trop. Med. and Parasitol., 11:1:27-68.

Dobell, C.: Reports upon investigations in the United Kingdom of dysentery cases received from the Eastern Mediterranean. I. Amebic dysentery and the protozoölogic investigation of cases and carriers. Med. Res. Com., Special Report, Series No. 4.

CONGENITAL LYMPHANGIECTATIC EDEMA

Joseph H. Marcus, M.D.,
Atlantic City, N. J.

This case of congenital lymphangiectatic edema is that of a 19 months old female infant whose brothers and sisters are normal and present no familial history that would be related to the present condition. The outstanding feature presented by this baby is a symmetric enlargement of the upper and lower extremities, involving the left side, also including the tissue in the region of the external genitalia, enlargement being approximately twice that of the normal side.

Treatment of this condition is extremely unsatisfactory and in reviewing the various methods and procedures advocated the results have been disappointing, the condition remaining practically unchanged. The following have been advocated: Massage, the distal stroke being used; elastic bandages applied by specially tapered bands; radium treatment; Roentgen ray and deep therapy treatments; a course of theobromin sodiosalicylate, 3 gr. t.i.d.; thyroid extract; and surgery has been advocated by some.

A review of the literature covering a period of 30 years emphasizes clearly the rarity of this condition; and if one were to eliminate certain case reports that are not distinctly of this type, the rate of occurrence would indeed be low.

Just what etiologic factors are responsible it is difficult to state. No positive opinion can be gleaned from the literature, although many theories have been advanced and certain conclusions drawn from clinical and pathologic evidence. Many of the text-books on pathology and pediatrics make no mention of this form of edema; others offer meager description; we have been unable to find any exhaustive study of the subject.

Von Reuss states that some forms are probably caused by the congestion that follows intra-uterine constriction by amniotic bands, and in these cases transverse furrows mark off the elephantiac portions from the healthy parts. In other cases there appears to be a simple hyperplasia of the connective tissue due to some morbid predisposition of inherent tissue defect. This view is further strengthened by the occurrence of elephantiasis in families and by its association with other malformations in the same infant. According to Ballantyne, the term congenital elephantiasis has been widely and loosely applied to all hypertrophic or hyperplastic states of subcutaneous tissues that may be present at birth. He includes also the soft and cystic varieties and the localized hard and soft types (congenital elephantiasis neuromatodes) but confines himself to the hypertrophic thickening of the subcutaneous tissue of one or more limbs or parts of the body which is found at birth. These, he states, are more nearly related to the instances of cystic elephantiasis. Vessels, nerves, bones, muscles, and fibrous tissue may also be involved. In the restricted sense, however, the condition is hyperplasia of the subcutaneous tissue, with special involvement of the lymphatics.

The case just cited, and others scattered throughout the literature, show a variety of conditions more or less similar and covered by the diagnosis of congenital elephantiasis. Many of these would appear to be much better placed as true neoplasms or as examples of gigantism.

True cases of congenital lymphangiectatic edema, it would seem, are of rather rare occurrence. The case that we have reported is, we believe, one typical of this fortunately rare condition. In considering the etiology, we venture the opinion that this disease is due to a congenital anomaly of the lymphatic system. There is no evidence or reason to invoke any hypothesis such as placental disease, amniotic bands or infections.

BLOOD SEDIMENTATION IN TUBERCULOSIS

Nathan Blumberg, M.D.,
and
Sydney M. Harberg, M.D.,
Philadelphia, Pa.

One of the great problems that confronts workers in the field of tuberculosis is to decide whether an individual has an active or nonactive lesion. It is important to decide whether the individual must discontinue his work and go to a sanatorium, or is able to continue at his duties and so not become an economic loss and charge on the community.

With this thought in mind, the authors have undertaken to make studies in blood sedimentation in a series of cases that have presented themselves to Clinic No. 7, Division of Tuberculosis, Department of Health of Philadelphia, at the Jewish Hospital, and at the Chest Department of the Jefferson Hospital. A group of 150 cases were studied as they appeared consecutively at the clinic. In this group were cases that had been referred for diagnosis by physicians; others for listing for sanatorium with a diagnosis of pulmonary tuberculosis; and contacts of cases that had been diagnosed as active cases of pulmonary tuberculosis. In classifying patients we found cases that were tuberculous and nontuberculous. In the tuberculous group we had a range from an absolute minimal, or incipient type, to a far advanced condition. In the nontuberculous group our final diagnosis was chronic bronchitis, asthma, malignancy, diabetes, cardiac disease, para-sinus involvement. Each case was thoroughly studied. First, a complete history, then a complete physical examination, using every means at our command. The laboratory was used for making studies on sputum, blood and urine. X-rays were used as an aid in every case possible. The temperature, pulse, respiration and weight were always carefully noted.

Despite such careful studies, it was very difficult to determine in some cases when tuberculous infection ended and actual tuberculous disease began; i.e., to decide whether there was pathologic or clinical activity. Lawrason Brown states that "pathologic activity denotes that stage of a tuberculous process in which some change is taking place, whether progressive or retrogressive". Pathologic activity can always be safely assumed when clinical activity is present, but progressive pathologic activity may occur for a longer or shorter time without evidence of clinical activity and, again, retrogressive pathologic activity can continue long after all evidence of clinical activity has vanished. Clinical activity "is that state in pulmonary tuberculosis in which pathologic activity is not latent, but is producing through the actual and immediate absorption of poisons certain clinical or laboratory manifestations of disease, which disease may in turn be progressing, stationary, or even for the time being retrogressing".

It has been customary, in determining whether a condition is clinically active, to regard as suspicious a temperature of 99° or more, a pulse rate of 90 or more, *acute* pleurisy, a feeling of tiredness, night sweats, poor appetite or blood spitting.

The Blood Sedimentation Test

The sedimentation test is a nonspecific reaction of blood rendered noncoagulable by a citrate or oxalate. It manifests itself by the rapidity with which the red corpuscles settle out of the plasma. The cells settle more rapidly normally in the blood of women than in men, and very much more rapidly in pregnancy after the third or fourth month. It is also increased during the menstrual period. At times an increase is also noted in the very young and in the very old. Of recent years a great deal of work has been done with blood sedimentation in all types of disease and infection. It has been observed very carefully by the gynecologists and obstetricians, so that it is being used as a guide, particularly in pelvic affections, as to the safety of doing an operation.

John Osborn Polak and Donald G. Tollefson, in a study of 1000 cases in the Gynecologic Wards of the Long Island Hospital, show that rapid sedimentation means infection when the reading in pregnancy and the puerperium can be excluded. They conclude

that the sedimentation test is a diagnostic aid in determining the time for elective operation; in prognosticating postoperative complications after the first week, and as a criterion for discharging patients. Finally, a low reading means infection and a high reading means that infection can be excluded. F. C. Sharpless states that it is of help in determining when activity of rheumatic fever ceases. It has also been studied in conditions such as pneumonia, syphilis, anemias, pregnancy and tuberculosis.

Robert A. Peers, Charles J. Durand, and Thomas C. O'Conner, Jr., state that there is a very definite tendency to sedimentation instability of the erythrocytes in the blood of tuberculous patients; that there is a more or less definite relation between the degree of tuberculous activity and the sedimentation index of the patient's blood; that this relation is shown by tendency of the sedimentation index to approach the normal as patients improve and as their disease becomes quiescent or arrested; that the sedimentation index in a majority of cases of active disease shows an index away from the normal in proportion to the activity and to the seriousness of the patient's condition.

Cutler concludes that the sedimentation test is more reliable than the temperature curve, pulse rate, or gain in weight.

E. M. Gersheimer has made an exhaustive study of sedimentation in children and has not found it of much value in determining the activity of disease in these individuals.

Technic

In performing the test, the authors used the graphic method as outlined by Cutler. The only outfit necessary is a special sedimentation tube of 5 c.c. capacity graduated into tenths of a cubic centimeter, each 1 mm. in height and marked in millimeters; a 5 c.c. syringe; sharp needles of about No. 20 guage; a freshly prepared 3% sodium citrate solution; and special sedimentation charts.

First of all it is absolutely necessary to thoroughly sterilize and dry the syringe, and needles. Properly prepare the arm for aspiration of blood at the elbow. Apply tourniquet to arm. Draw into the syringe 0.5 c.c. 3% sodium citrate solution, then puncture the vein and draw blood to 5 c.c. mark. Withdraw needle from vein and gently shake the syringe in order to get a complete mixing of blood and citrate solution. Remove needle from syringe and pour contents of the syringe into the sedimentation tube. The tube is closed with a paraffin coated cork and gently turned upside down several times if the reading is not taken immediately. The tube is then placed in a rack. This procedure is repeated for each patient on whom the test is done.

The readings are recorded every 5 minutes for 1 hour, on the special charts, and the various readings obtained indicate the presence of pathology and the amount of activity in the pathologic process.

In contacts who had no symptoms of clinically active tuberculosis the graph presented a horizontal line; that is to say, that the red blood cells did not sediment within 1 hour. In the early incipient cases that had become quiescent there was a gradual and slow sedimentation which resulted in a diagonal line. In those cases that showed activity we obtained a more rapid, or a very rapid, falling of the red blood cells which resulted in a diagonal curve or vertical curve respectively.

(Charts of 6 cases were exhibited by the authors, with descriptive clinical notes.)

Conclusions

(1) From the series of cases studied we felt that the test was of distinct value only in estimating activity of the condition present.

(2) That it was of no value in making a diagnosis.

(3) That the test was not of value in any individual with an infection, as any inflammatory condition tended to cause a distinct drop in the red cells.

(4) That the test had to be more carefully weighed in women because of frequent gynecologic disorders; as pelvic conditions tended to cause a rapid sedimentation drop.

(5) Tests should be repeated at stated intervals in order to determine whether changes occur, as we felt that blood sedimentation was a much more prompt and delicate reaction than the readings of the temperature, pulse and respirations.

THE TREATMENT OF ARTERIO-SCLEROTIC HEART DISEASE

Harold E. B. Pardee, M.D.,
New York City

Assistant Attending Physician, N. Y. Hospital; Assistant Professor of Clinical Medicine, Cornell University Medical School, N. Y.

In considering the treatment of arterio-sclerotic heart disease, we must realize that we are dealing with a very slowly progressive condition. It is not common for it to make its first appearance a short time before the patient's death. For this reason we are to have a long battle, and so we must at the beginning get our house in order, so to speak, and give the patient a very thorough examination from the point of view of general hygeine. We must see to it that the bowels are functioning properly; if it is a man, that the bladder is functioning normally, or if it is a woman, that there are no important pelvic disorders. The teeth and the alimentary tract must be considered from the point of view of foci of infection, and if any abnormality is found it should be carefully set to rights. The hours of rest and recreation must be carefully arranged, and the proper amount of exercise must be prescribed for its tonic effect. If these things are not done, our patient may be working under an unnecessary handicap.

The use of potassium iodide must be considered. This drug has rather fallen into disfavor of late. Certain patients, however, especially those with increased blood pressure, feel better while they are taking potassium iodide, and so, perhaps not at the beginning of the treatment, but certainly some time after the treatment is under way, potassium iodide should be given to these patients in a dose of 20 to 30 gr. daily, and the therapeutic response should be noted. If they do not seem to be benefited symptomatically, then it is doubtful whether there is any advantage in continuing this medication. Most physicians at present feel that potassium iodide has very little effect in softening hardened arteries or in delaying the hardening of those which are showing signs of disease.

Theobromin, theophyllin and euphyllin have been found, experimentally, to have an effect upon the coronary arteries, which increases the blood flow through them. Experimentally, the most potent of these drugs is metaphyllin; and very good clinical reports have been made recently of its effects. I have used theobromin sodio salicylate for several years, in patients suffering from arteriosclerosis of the coronary arteries, with pain on effort, and have felt quite certain that it had a definite effect. I have used metaphyllin more recently, and I believe that this also has a definite effect, perhaps a stronger one that theobromin, but it is very difficult, as you know, to decide whether one drug or another is better in a condition which varies as much in its clinical course as does this one. Either of these drugs, then, will dilate the more healthy coronary arteries and will promote a collateral circulation of blood to the area, which should be supplied by the diseased branch or branches. Theobromin sodio salycilate is useful in doses of 7 gr., 3 or 4 times daily. Euphyllin, in doses of 1½ gr., 3 or 4 times a day. In my opinion one or the other of these drugs should be used intermittently, almost continuously, in patients who are suffering from this disease. It should be given continuously for the first 4 or 5 weeks of treatment, and then there may be one or two weeks intermission, perhaps after each 2 weeks of treatment.

There are certain special measures applicable to special manifestations of this disease which should be mentioned here, though it is impossible, of course, to take up this treatment in detail. In the attacks due to infarction of the heart from coronary thrombosis, morphin sulphate by hypodermic is the most important drug. It should be given hypodermically in a dose of from 1/4 to 1/3 gr., and a further dose should be given if the patient is not quieted by this. Adrenalin in the dose of 10 minims by hypodermic, and caffein sodium salycilate, in 5 gr. doses by hypodermic have been recommended for this condition, but they do not seem to me to be very

important drugs. Adrenalin may possibly do some good through its ability to dilate the coronary arteries, thus promoting collateral circulation in the heart muscle. It certainly does not do any good on the basis of its blood pressure effect, because in these attacks adrenalin will not raise the blood pressure. When, as is frequently the case, there are evidences of cardiac failure, as shown by pulmonary congestion, or by distention of the veins of the neck or of the liver, digitalis is indicated. It should be given intravenously, for only in this way can its effect be produced promptly enough to be of much service. It has been recently shown that the 3 commonly used digitalis preparations all have a potency about equal to that of a good tincture of digitalis, and that their initial dose accordingly may be as much as 1 minim of solution per pound of the patient's weight. We may then give from 100 to 150 minims (6 to 10 c.c.) of digifolin, digitan solution of digalen intravenously, if signs of cardiac failure are present, and we may hope to get results from this within half an hour.

If cyanosis and dyspnea are present the inhalation of oxygen will be beneficial. Lacking a proper oxygen tent, the introduction of a stream of the gas directly into the nose or mouth of the patient is to be recommended. If a Bennet inhaler is available, and the patient will submit to the mask over the face, this may be used. In these severe attacks it is usually unnecessary to tell the patient to remain in bed, but after the milder attacks the recovery may be so prompt that it will be sometimes difficult to persuade the patient that he should rest as long as it is advisable. A cardiac infarction produces an area of necrotic muscle which is in a highly irritable condition. If a strain is thrown upon such a heart, ventricular fibrillation may set in, or the muscle may rupture. For this reason the patient should be urged to remain in bed, and not to make any more physical effort than is absolutely necessary for a minimum of from 7 to 10 days. After this, he may be gradually out of bed and around again, for by this time the processes of healing will have definitely set in.

For patients who show precordial pain, coming with effort or excitement, and passing off with rest, administration of sedatives is often helpful; luminal ½ gr., 3 times daily; or a mixture of chloral hydrate 3 gr., and soda bromide 10 gr. may be given 3 times a day, and will allay the nervous irritability which so often goes with a tendency to these attacks. For the pain, itself, the dissolving of a nitroglycerin tablet, 1/200 or 1/150 gr., in the mouth will usually give almost instant relief. The patient should be urged to avoid the amount of effort or of excitement which will bring on these pains, for the more frequently this sensory reflex arc is used, the more irritable it becomes, and the smaller the stimuli necessary to start the pain mechanism. The restriction of the patient's activity must be guided by the above, and if he is able to walk about somewhat, I see no advantage to be gained by having him rest in bed or in his room. If, however, patients cannot walk about without getting pain, then they should rest in the room or in bed, as seems indicated. Long courses of rest in bed are sometimes recommended for this condition, but it has not been my observation that they are of any greater benefit than the same length of treatment with a moderate restriction of activity as outlined above. At risk of repetition, I must mention the bowels of these patients, for often the proper regulation of the intestinal tract will make a vast difference in suceptibility to pain.

When patients with arteriosclerotic heart disease develop signs of congestive heart failure, such as have been described, the most important treatment is a combination of physical rest with the administration of digitalis. Rest for these patients need not be absolute unless they find that the slightest effort brings on shortness of breath or palpitation. Restriction to the room or house is usually sufficient in these cases unless patients are in a severe state of failure. If they are able to go out and to walk a short distance without developing symptoms, it does no harm to allow them this liberty, provided they do not exert themselves to a degree which too closely approaches their limitation. Patients

must be individualized in this respect, for some patients will make themselves very short of breath or produce a very rapid heart without having any sensation that will apprise them of this. Others, however, feel the slightest disturbance of the heart function.

In giving digitalis to these patients we are governed by the usual rules of its administration with one additional feature. On the whole, these patients are apt to take somewhat less digitalis to produce the full therapeutic or minor toxic effect than is necessary in patients with cardiac valvular disease. In other words they seem to have a greater average susceptibility to the drug. If they are well enough to be ambulatory, it is proper to start with a dose of 4 or 5 gr. daily, according to whether it is a small or a large individual, and to continue this for 4 or 5 days, and then reduce the dose to 3 or 4 gr. daily, continuing this until we see some evidence of therapeutic or toxic effect. These patients should be seen every 4 to 6 days during such a course of digitalis, and should be warned of the possibility of loss of appetite, nausea and vomiting, and told to discontinue the drug promptly if these symptoms should appear. If therapeutic benefit is obtained before the toxic symptoms appear, it will suffice to reduce the dose to 2 gr. daily, and to continue with this. If toxic signs appear first, the drug should be discontinued until they disappear. We should then try to decide whether the patient's symptoms have been improved and, if so, should continue with the daily dose of 2 gr. which was suggested before. This amount of the drug will on the average maintain the therapeutic level of digitalization. Certain patients need more than this, others need less, but this will do for the majority. Digitalis will usually relieve the palpitation and shortness of breath; if not completely, at least to a certain degree. It should be continued for a month or 6 weeks and then stopped, to see whether or not the patient can now get along without it. Should the symptoms reappear, digitalis should be started again, as before, and continued this time for a longer period.

Should the patient show edema it will often be found that 10-15 gr. diuretin, 3 times daily, will relieve this, if digitalis has not done so. When the patient is bedridden and shows marked edema, 15 gr. of diuretin may be given 3 or 4 times daily, or 5 gr. theocin, but both of these drugs in this dosage have a tendency to cause nausea and vomiting. They should, accordingly, be given for only 3 or 4 days, and be resumed again after an interval if they have been helpful in decreasing the edema. Fluid restriction and salt restriction are always helpful in getting rid of edema when it is considerable in amount.

Another drug which should be tried in cases which have not responded to the above diuretic measures, is the mercurial preparation, salyrgen. This should be given by intramuscular injections 1 c.c. every third day, and at the same time the patient should take ammonium chloride, 15 gr., every 4 hours. It is well not to give over 3 or 4 doses of this drug without an intermission, because of the danger of mercurial poisoning. Parathyroid hormone has also been found useful in ridding certain patients of excessive persistent edema. This is given intramuscularly in a dose of 10 units every second or third day.

When the arteriosclerotic disease gives rise to cardiac arhythmia, the treatment depends somewhat upon the charcater of the arhythmia and the symptomatic complaints to which it gives rise. In any case, administration of theobromin or of euphyllin is indicated to correct the patient's fundamental condition.

If premature beats are present and give rise to palpitation, they really do not demand treatment unless they annoy the patient. The administration of quinidin sulphate, 4 gr., 2 or 3 times a day, will as a rule diminish the frequency of these premature beats. It is not well to continue this drug for any great length of time, in a dose larger than 4 gr. twice daily, for it has a definite toxic effect upon the heart muscle. Sometimes when quinidin fails to abolish premature beats, administration of digitalis will be successful, and it should be given in the usual way, as has been described. If heart block is present with dropped beats, or with complete auriculoventricular dissociation and slow ventricular rhythm, barium chloride may be useful in im-

proving the function of the auriculoventricular bundle. It may abolish the dropped beat and may change the complete block into a normal rhythm. This should be given in a dose of 1 gr., 3 times daily, and may be continued over a long period of time without harm.

When auricular fibrillation has set in, the treatment depends somewhat upon how long it has been present and upon whether or not cardiac failure has resulted. If the auricular fibrillation has been present for only 24 hours, it is safe immediately to attempt to restore normal rhythm by the use of quinidin. For this purpose a capsule of 6 gr. should be given, every 4 hours during the day, and one dose at night. If normal rhythm does not appear after 24 hours of this treatment, it is probably advisable to discontinue quinidin, and to treat the patient with digitalis, attempting to slow the ventricular rate and so save the muscle from fatigue and the heart from failure. Digitalis should be used immediately in the presence of heart failure due to auricular fibrillation, or in the presence of auricular fibrillation of more than 24 hours' duration even without heart failure. It may be given as prescribed above, or it may be given in larger doses if more prompt effects are desired. As much as 1 gr. per 10 lb. body weight may be given for the initial dose, and further doses of 2 gr., 2 or 3 times daily, according to the size of the patient and according to the frequency of our visits to the patient. When the heart rate is slowed down to approximately normal, we should reduce the digitalis to about 2 gr. daily, and continue this dose. After the heart rate has been slowed and the cardiac failure abolished, it is then advisable to consider whether or not the case is a suitable one for quinidin. We do not at present have any very exact criteria as to which patients are likely to have normal rhythm returned by this drug, but it seems that on the average, those with the larger hearts are not so prone to a favorable outcome. The danger of embolism after the resumption of normal rhythm will be minimized if we keep the patient well under the influence of digitalis for 3 weeks after the heart rate has been slowed. This will enable any clots which may have formed in the auricles to adhere to the wall so that they will not be forced out into the circulation by the resumption of auricular contraction. Patients who are not fairly well compensated should not receive quinidin, for these patients are always likely to have clots in the auricular appendages. When quinidin is given to a patient who has previously been treated with digitalis, it is usual to stop the digitalis during the quinidin course, and to give the quinidin as prescribed above for 2 days. If normal rhythm is not resumed after this, the dose should be increased to one capsule every 3 hours, and 2 doses given during the night. During the quinidin course the patient should remain in bed, for quiet is believed to favor the return of normal rhythm. After 3 days of the 3 hourly doses, it is best to discontinue the drug and to give up the attempt to restore normal rhythm. Most patients in whom the treatment is going to be successful, will return to normal rhythm before this, and the few who return with more prolonged treatment are not so liable to continue with normal rhythm for long enough to make the treatment worth while.

AN OLD PRAYER STILL GOOD

Here is an interesting old prayer in verse, which dates from the eighteenth century at least. It is of English origin, but its author is unknown. It is as appropriate today as when written, as a petition for divine help in living a happy, healthy and useful life here on earth.

Give me a good digestion, Lord, and also something to digest.
Give me a healthy body, Lord, with sense enough to keep it at its best.
Give me a healthy mind, good Lord, to keep the good and pure in sight,
Which, seeing sin, is not appalled but finds a way to set it right.
Give me a mind that is not bound, that does not whimper, whine or sigh.
Don't let me worry overmuch about the fussy thing called I.
Give me a sense of humor, Lord; give me the grace to see a joke,
To get some happiness out of life and pass it on to other folk.

—The Churchman (New York).

In Memoriam

FLAGGE, Dr. Frederick W., of Main Street, Rockaway, died very suddenly July 28, 1929. With his wife and daughter he had been visiting at the summer residence in Belmar of his son-in-law and daughter, Mr. and Mrs. Harry Steifel. Apparently in good health upon retiring the night before his death, he was stricken with a heart attack shortly after 5 o'clock in the morning and succumbed within 15 minutes.

Dr. Flagge was born in New York City, July 25, 1858, the son of Francis Henry and Mrs. Mena Fischer Flagge. He was graduated from the New York City public schools and received training for his medical career in the College of Physicians and Surgeons, New York, in which institution he was under the personal instruction of Professor James Little. He was graduated, with the degree of Doctor of Medicine, in the class of 1880, and for a short period of time thereafter pursued a special course under Drs. Alfred L. Loomis and George Wheelock. His first independent work as a doctor was done in New York City, but at the end of two years he moved to Rockaway, where he has since maintained his home and professional headquarters.

Dr. Flagge had been a member of the Morris County Medical Society since 1882. He was President in 1891, and from 1901 on, a Permanent Delegate to the State Medical Society. He was also Treasurer of the Tricounty Society of this state. He served at one time on the staff of All Souls Hospital and on that of the Memorial Hospital, both of Morristown. For several years past he had been an honorary member of the latter staff. Ever since its foundation, he had been on the Surgical Staff of the Dover General Hospital, and had been for some time Consulting Physician to the St. Francis Health Resort, a convalescent sanitarium at Denville, New Jersey.

Dr. Flagge was a Democrat and always took a very active and prominent part in civic affairs. He was one of the first councilmen of Rockaway borough and was a member of the township board of health. In a fraternal way he was affiliated with Citizens Lodge No. 144, I. O. O. F., in which he has been noble grand; and with the R. A., and B. P. O. E. He was a member of the White Meadow Club and president of the Rockaway Club.

Dr. Flagge was very well known and highly respected throughout Morris County and for many years had a very large practice especially around Rockaway, Hibernia, Mt. Hope, Denville, Dover and Beach Glen. For the past several years, however, although still a practicing physician, Dr. Flagge has not been as active as in previous years.

He is survived by his wife and two daughters, Mrs. Harry Steifel, of Belmar, and Miss Ludmila Flagge, of Rockaway.

One of his fellow members of the Morris County Medical Society says of Dr. Flagge: "He was one of the ever dependable members, always ready, when called upon, to do whatever was asked of him. It is no exaggeration or mere post mortem laudation, but a simple statement of fact, to say that the gaps he leaves in the county society, and in his community as well, are simply unfillable. We go along somehow, but there are things which, by reason of the absence of such a man, are not done."

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE:

CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

PENDING TARIFF BILL

Attention is once more directed to the tariff revision bill now being considered in the United States Senate, and especially to the fact that one clause of that document threatens to further burden the physician, the surgeon and the patient. The existing law provides an average tax of 45% on surgical instruments imported. It was proposed in the Bill recently passed by the House of Representatives to increase such import duties to an average of above 70%; the increase will go beyond that if Congress adopts the further recommendation that the tax shall be calculated upon an American valuation instead of upon the basis of actual purchase price abroad. All imported surgical instruments and appliances will, in consequence, cost the purchaser from 25% to 50%—in some instances probably 100%—more than he has been accustomed to pay heretofore. And to what purpose? Theoretically, that American manufacturers of *similar* goods may be *protected;* actually, that American manufacturers and dealers may increase the prices on their own goods or foist inferior home-made articles upon the purchaser by raising the importation price to a prohibitive point. As a matter of fact, the major portion of surgical instruments imported into the United States are not made here, or cannot be made as well by our manufacturers as by the foreign maker. We do not employ as fine a quality of steel, to start with, and in some instances we have not as skilled laborers. As examples: The cataract knives made by Weiss, of London, surpass any we have ever been able to secure from an American factory; the exquisitely delicate scissors and knives for intratympanic aural operations, made by Pfau, in Germany, cannot be matched by our workmen. Will an increase of import tax improve the quality of our home-made articles? It will not. It will only compel the surgeon to pay a higher price for his tools, or accept inferior tools; and the latter will be available only at prices very close to what the original superior article will cost.

Shall the surgeon, or the hospital, bear this increased burden of expenditure or shall he pass it on to the patient? The surgeon cannot readily vary his fees according to the make of instrument he happens to use. He can, he may be compelled to, increase his fees to cover increasing "over-head costs", but the country is already howling about the high cost of surgical services. If he bears the burden personally it is an unfair imposition upon him in order to support the manufacturer or his workmen. If he passes the burden on to the patient it is taking an unfair advantage of someone already being victimized—by disease or misfortune.

Whatever one thinks about taxes upon automobiles or sewing machines, upon luxuries or even some of the necessities of life, some consideration should be shown in relation to apparatus used for the alleviation of suffering and the saving of human lives.

Tell this *now* to your Representative and your Senator.

Collateral Medical Reading

THE BALANCED LIFE

Austen F. Riggs, M. D.

(Continued from August Journal)

Play, unlike work, must not be too closely regulated lest it become like work. The opportunity for play, of course, should be planned for, because if it is not part of the scheme of life it will be crowded out by those extra side issues related to the daily routine, especially to work, which are so apt to present themselves as new opportunities for more work and which are always created by the natural outcome of successful work. In modern times this is particularly true, for the great temptation of the modern worker is to try to do five days work in one. Ambition, competition, as well as the numberless mechanical helps of modern life which have well nigh eliminated space and have cut the time element at least in two, contribute enormously to this temptation. The siren opportunities call and the worker, especially the young worker, answers. He is elastic, has great reserves of strength and accomplishes the extra tasks with success, with great satisfaction, and without any apparent ill effects. He is young, he absorbs the strain, and he thinks of play, if he thinks of it at all, as merely postponed until this or that task has been accomplished. The next extra task of the endless series, however, soon overlaps the old one and so it goes on. Being young, it is all right for a time, but being a creature of habit, he unfortunately gets used to the abnormal playless life, and the results of such a life being slow to make themselves felt, particularly in the presence of ever growing satisfaction and ever increasing ambition, it is not till some gross failure of his physical apparatus or a serious mental or emotional reaction commands attention that the apparently upward, but really downward, course is checked. I believe it is largely because in this country we are production crazy, worshipping quantity rather than quality, and therefore having relatively no interest in play except when it can be made to yield more opportunity, that so many of our men are not only old but ancient at fifty. If a man had played as hard as the average "successful" American works, if he had played as immoderately or eaten or smoked or drunk as immoderately, we would not wonder at his being a wreck at fifty. There is even less wonder that the immoderate and playless worker is so often a burnt out candle at middle age. It is rather a greater wonder that he is not always dead by then.

Play is as much necessary to normal life as sugar is necessary to a normal diet. It cannot be postponed for a decade and then taken up, for it is a daily necessity. One cannot eat only meat for one month, bread for another, and only sweets the third, and call it a balanced diet, let alone expect thereby to maintain normal digestion and nutrition; yet, men often plan to work hard and exclusively till, say 50 or 60, and then to retire and play the rest of their lives. It is a pitiful mistake they make, for when they retire they find that the sole ability they have left is to work—the one they have exercised all their lives, and that their ability to play, so long neglected, has left them for good and all. The so-called "play" they attempt is just work in another form; they feel they ought to play, they have earned the right to play, they must play, but still they cannot. It has become to them a lost art. It has never been part of their daily working life, it has never had its proper place in the weekly, let alone yearly plan, and now when it has the field all to itself it is a paralyzed function. It would have been the same had they played all their lives till 50 or 60 and then tried to live on work exclusively. Work would have become a lost art. The fact is, one must go to school to play hookey, one must be a worker to play properly, and equally one must play to work properly. Work and play together balance life, one feeds the other. They are mutually necessary; neither can be neglected for long in favor of the other without causing serious unbalance and, furthermore, finally destroying the other.

There is a popular belief that people "break down nervously" exclusively because of too much play and too little or no work. This is a prejudice, and like most prejudices, is based on ignorance. As a matter of fact, in such cases the unbalance is almost always in favor of work. In my own experience, for instance, there have been some 30 exclusive workers who have broken down to every one non-working player, and it has always clearly been the unbalance between work and play that has done the mischief.

There is a very important characteristic of play which is shared with art. Each is a jealous mistress. Wherefore time, when it is given to play, must be given wholeheartedly and exclusively. No hedging is allowable. To seek even a little profit or a little gain ulterior to play will ruin it. The man who tries

to profit by his play is a professional player, for that profit inevitably becomes a motive whether he plays baseball, tennis, cards, or golf. The man who in no way intends to be a professional player and yet tries to sneak in a bit of profit is just foolish, for he fools himself into losing the one profit he needs—refreshment.

Play is an item that one finds neglected even more in the average woman's life than in the average man's. The married woman's work is outwardly so apparently unlike work, being so intimately connected with social activities and with the play as well as the work of the children, that her need of vacation is only rarely recognized. The average family goes on its vacation or perhaps it would be more accurate to say on the man's vacation. He leaves his office behind him, he enjoys not only a change of scene and social contact, but a total relief from the daily effort and responsibility of his job. The children are out of school, and under the best natural conditions give themselves up to play pure and simple. On the other hand, a woman simply transfers her job from one locus to another; the husband's comfort and indeed his vacation enjoyment are part of her job. She still has him as a responsibility and as an important objective of her daily efforts. She still has the children's health, pleasure, and safety to watch over just as she did at home. Housekeeping is the same old grind. That is another unchanged part of her job, unchanged save that now she has to do it under greater difficulties than she did in the city. In short, the family vacation is splendid for every single member except herself and for her in 99 cases out of 100, not a vacation at all, just a change of scenery. On the other hand, she, because of the very nature of her job which is constant duty made up of numberless and nameless details without office hours and subject to many other peoples' more or less inevitable wants and demands, needs a vacation more than the man with his well-regulated hours and strict closing time. It is all very well to say that women could, and should, regulate their work so as to have office hours, time off for rest, etc. True, but the fact remains that the vast majority of women do not and many cannot so regulate their jobs, and even if they did, they would still be at least in as great need of regular vacations as their husbands. Unless the family plans definitely include a vacation, apart from the family, for the woman, and unless she also sees to it that her daily, weekly, monthly, and yearly allowance of play and rest is maintained, she will follow the usual routine of plugging away till she gets too tired, too stale to be able to play. Frequently, it is only then that her necessity is recognized and, instead of an enjoyable, youth-conserving vacation, she has to take an enforced, none too agreeable, none too satisfactory substitute—some sort of a rest cure. Instead of the refreshment and the play she so much needed she gets "built up", somewhat rested, and goes back to her job again only to repeat the same old cycle.

Rest is a part, or if you please, an activity of life which is in contrast both to work and play. It is totally unlike both of them in that it is characterized by the absence of voluntary effort. Indeed, it is the very antithesis of both, and particularly different from work, being marked by a total absence of responsibility. Neither physiologically nor mentally is it inactivity, for all of the functions of the body go on quite busily during rest. Even during sleep, this is true, and, even in that state, the mind continues to function. Complete rest is a sort of irresponsible automatic functioning in the mind-body machine, characterized by the absence of voluntary movements and of any effort to control either the body or the stream of thought. In rest the body is relaxed and the mind wanders, that is, it dreams. At certain times, unless interfered with, this condition turns automatically into sleep. The resting person never suffers from insomnia. Regularly recurring, irresponsible rest is as necessary to bodily and mental health, as is regulated and purposive activity. One of the most important functions of play is to prepare the worker for rest by relieving those combinations of higher brain centers, which have been employed in work, by using totally different ones. Every living animal, especially that strenuous animal man, must have sufficient rest in every 24 hours to reëstablish equilibrium between waste and repair. The amount of rest required by each individual varies, but the average working man or woman with an output, say of 8 hours work needs nearly, if not quite, that amount of rest every 24 hours. It need not all be in sleep, for in this requirement normal people vary greatly, but about that amount of time free from responsibilities and voluntary exertion seems to be a necessary allowance if life and health and usefulness are to be measured in decades rather than in days or weeks. This I have found to be the average need, but it varies not only with the quantity

of work done but, also, and most markedly, with the quality of the rest obtained. Some people take an hour or two to begin resting, others rest at once, as soon indeed as the harness of work drops off. This is largely a matter of technic. Some people do not know how to rest, others do. Those who do not, may easily learn the art. Suffice it to say here that this art depends, in the first place, upon understanding what rest is and then giving oneself absolutely up to it without thought of profiting in any other way during the time given to it. Like play, rest is jealous. If you have given a time to it, do not attempt to inject amusement or anything else into that time. "Write off the time," as a book-keeper might say. Give yourself completely to rest and let it take care of you. Leisure and contemplation, as extension of rest, must wait for a fuller discussion.

It is clear that mental hygiene would be meaningless if disconnected from an ethical purpose. If happiness is a by-product following in the wake of successful adaptation to life, as experience teaches us it is, then the success in this process and consequently also the degree of happiness attained depend on just how much the individual has chosen objectives in words and balanced his purposes with play and rest. It has been my experience, that happiness, besides being a joyous by-product of such success, is a very definite and reliable symptom of mental health. Pleasure, of course, is another matter.

Experience in teaching mental hygiene, however, has convinced me that this ethical aspect has suffered a relative neglect in many of the present methods of instruction. Very likely this has been a necessary imperfection due to its youth as a science and the apparently pressing necessity, in each case, of applying a specific and detailed technic to overcome the immediate difficulty or disability presented by the case. However that may be, it seems to me that both teachers and pupils, doctors and patients, have paid relatively too much attention to the detail of reconstructive or preventive technic and too little to the main object of their efforts. Restoration of ability to serve, not relief of symptoms, is clearly the main objective of mental as well as physical hygiene. I have found, in my own teaching that, without this ethical objective, mental hygiene, as such, almost invariably fails to cure even symptoms.

Medical Economics

BUSINESS AND ETHICS

John T. Flynn, in The Forum, October, 1928

(Being interested always in the ethical conduct of our profession, and much concerned about recent threatening tendencies of "business" customs to overwhelm our centuries-old code of ethics; and having listened to and read a goodly number of the outpourings of advocates of "modern" business success; we were pleased to discover a "debunking" article that seems worthy of special attention. We are giving here an abstract of Mr. Flynn's interesting paper, presenting particularly those paragraphs that have a comparative bearing upon our own profession.—Ed.)

"Business!" exclaims the Dean of the Chicago University Divinity School, in an almost ecstatic prostration before the throne of Mammon—"Business! Maker of Morals!" Then like a true priest, eager to set up a monopoly for his principal, he cries out, "What else but business could make morality?"

Dr. Frank Crane lifts his soul to an exalted level in an incantation of such poetic and religious fervor that it rises almost to a chant about the National Cash Register Company. There upon a hill in Dayton the good doctor catches a glimpse of Paradise, and he calls his little apocalyptic saga "Heaven and Kingdom Come." Glenn Frank glorifies the American salesman and sees him as following in the footsteps of the Savior, who, as the Super-Salesman in the great drama of the Atonement, was simply merchandising salvation to the human race. And to this Bruce Barton adds the further compliment to the Master that he was not like those febrile figures of the Italian canvases, but more like the virile, go-getting, he-men of business; that he was the founder of business, the first great advertiser, the premier group organizer, the master executive, and the champion publicity grabber of all time.

Business has become almost a holy thing. The muckrakers have been driven into exile and the old freebooters have been recalled from the deserts of odium to which they were whipped twenty years ago. Niches are being prepared for them in our American Valhalla. A few of them wait only for death to be admitted to full sainthood. And business—the great system of barter and trade by which they climbed—has become, not a maker of morals merely, but the *only* maker of morals in the world. I should like to examine that precious morsel.

The Good Old Days—May They Never Come Again!

If I have any criticism to make of today's business morals, I certainly have no tears to shed over the old-fashioned business man. His rules of conduct were few, simple, and crude. "Business is business"—that was his slogan. And he had fairly exhausted the resources of apologetics when he explained that he was not in business for his health. He had his code, though he did not dream of engrossing it on parchment and framing it for the wall. There seemed to be two laws—one for the people he knew, and one for the stranger. A regular customer, aware of being short-weighted or overcharged, might take his trade to a rival. And a rival was hated above all evils. But apparently it was defensible to squeeze the last penny from the outlander and the passer-by. The old merchant felt he had a right to charge what he pleased. If he chose to sell to one man at a low price and require a high price from the next, that was his own affair.

In some way this has come to be immoral. For one reason or another the old order is passing, in which the merchant bargained with his customer and lied ignobly in the process. He asked a big price and came down if he had to. That is now unethical. Now he asks a big price and sticks to it. Instead of charging one man $1 and another man $2 for a .50 razor, he charges everybody $5 and the light of heaven shines upon the transaction. The old merchant cared little about what was in the packages on his shelves or what was on the labels of those packages, and the manufacturer was equally indifferent to what he put in them.

A famous advertising man writes the story of his life. In one chapter he tells with great gusto of his part as a pioneer in patent medicine advertising in its early days, when it flourished in all its glory. In another chapter he tells with swelling pride of the part he took as a pioneer against dishonest newspaper publishers who lied about their circulation to advertisers. One can imagine the pious chagrin of a patent medicine advertiser who supposed he had been lying to 100,000 readers when he was only lying to half that number, because the publisher was lying to him. This force is operating now with greater effectiveness than ever. The new competition has put all business into competition with all other business for a share of the consumer's dollar. If one business group can drive another business group out of the race, it will have a better chance for a larger share of that dollar.

Along with this, the modern business man's greater intelligence is pointing the way to sounder, safer, surer profits in better business. Aside from the chicanery of the knave, a good deal of the badness in business may be traced to ignorance. Today it would be hard to find any trade that surpasses the women's ready-to-wear industry in the extent and intensity of its bad manners and its immoral practices. And no trade surpasses it in ignorance. It is for this reason that big business, taken upon the whole and in its daily man-to-man dealings, is more honest than little business. It is more intelligent.

The Ethics of Bunk

With all of this, however, the modern business man, taking him as he comes, is more honest than his predecessor. But he is also more full of sham. You will get a squarer deal from him, but you will also get a stifling volley of claptrap. And for this consummation, I am sorry to say, we are in large measure indebted to some of the pragmatic members of my own craft. Mr. James Wood, in a very astute little book called *Democracy and the Will to Power,* lays his finger upon this strange phenomenon. In the race for riches, which is the common goal, some men succeed because they possess and use the proper economic endowments for that kind of success. There are, however, always a number of intellectuals not so well equipped for this race, though none the less eager to win. They group themselves about the doers, the achievers, the producers, the effective go-getters, and prey upon them. One method of doing this is to become the apologists and defenders of their successful patrons. They invent philosophies to justify them. They make propaganda. They set up systems of ethics hand-made to fit the current aims of their employers. They serve in less noble ways. They design bogies to frighten their masters and thus prolong their employment. They fashion and exaggerate red terrors and yellow perils. They produce the speeches, write the articles, compose the autobiographies, and trumpet the deeds of their masters.

So excellently has this propaganda prospered in this country that it has called forth a religion of success. It is this parasite class, therefore, which has loosed upon us the flood of bunk in which American business wallows. We do not now hear the voice of the business leader. When he appears, he is brought on the stage artfully made up and supplied with the proper lines to speak. When old Daniel Drew looted the Erie Railroad, wrecked its credit while a director, and then went into

Wall Street and gathered in its crumbling stock, he chuckled outright and boasted "he had got the sow by the ears and put the road in his breeches pocket." One cannot conceive of such language now. When a great oil magnate seizes a vast oil field after a campaign of corruption and bribery, he informs his countrymen that he did it as a patriotic act to protect his native land against the threat of an impending war with Japan. Of such is the Kingdom of Bunk.

But the practice has its ethics, though I am far from pretending to understand it. It is an airy region. One enters the very ether of morals in search of the ethical values of bunk. Thus no one has laid down any reliable principles to guide us in our lying. All we know is that lying we must have. We are an honest people just as we are a dry people. In the main we are for prohibition. Or at least the more respectable of us are. But it does not follow that we must take our prohibition too seriously any more than we must take our ethics too seriously. We are against hypocrisy just as we are against homicide. But there is such a thing as justifiable homicide. May there not be such a thing as justifiable hypocrisy?

When a trade group decides that the time has come to get together on a series of agreements—offensive and defensive—against their customers and the public, do the members say so? By no means. Instead, some gentleman rises in meeting and delivers himself as follows:

"Brothers: It must be clear to every monkey wrench manufacturer present that the great vocation of making monkey wrenches for this free people summons us to higher efforts of service. We want profit, but there are things more sacred than profit. First comes our God, then our flag, then our monkey wrenches. We must make America monkey-wrench conscious, then we must give her a monkey wrench that represents the highest ideals of patriotism. We have established the Monkey Wrench Institute of America. Thus, as members, we have attained to the state of a profession. We want everything professional men have. And so we must have a code of ethics."

The Anti-Social Codes

Of course, every wrenchman present understands this language. The euphuism of bunk is universally accepted. So the Monkey Wrench Academy sets up a code for the guidance of its academicians. There are the phrases about God, the flag, and service. But few care about this harmless rhetoric. What they do care about, however, are those more deadly provisions somewhere down in the body of the instrument which deal with competition, price cutting, personal raiding, and so on.

There is, to be sure, a large element genuinely interested in this elevation of business to the rank of a profession. They have been told by eminent divines that business is a ministry. They observe that Harvard has erected a School of Business and that its professors wear cap and gown. They see schools of business rising on a score of university campuses. Distinguished financiers and industrialists are honored with the degree of Doctor of Commerce. And they feel the ancient curse which feudalism cast upon the merchant dropping away.

However, the yearnings of these gentlemen are satisfied by the mere adoption of the code. The serious sections of the code, hidden away in the centre, are there to satisfy the more practical men. If you will examine any code, you will find there are two kinds of provisions in it—outward-looking and inward-looking. The former reveal the learned member of the National Minced Ham and Veal Loaf Association looking out upon their duties to the universe, ranging from the day's customers even as far as to the skies. The inward-looking provisions expose them looking at each other and contemplating their relations within the trade. And if you are looking for dynamite in a code of ethics, it is there you will find it.

The outward-looking items are mostly language, with the Golden Rule playing the stellar rôle. "The Golden Rule"—thus begins the bankers' code—"as beautiful and comprehensive as when it was uttered by the Great Teacher, remains and will continue throughout all time to be the measure of man's duty to man. 'Therefore all things whatsoever ye would that men should do unto you, do ye even unto them. For this is the law and the prophets.'" And the Concatenated Order of Hoo Hoo—which is Rotarian for Lumbermen—pledge themselves "To establish the spoken word on the same basis as the written bond, to consider our vocation worthy, and to be worthy of our vocation as the nation's home builders, and to keep in view the world bonds of human interest."

The hair dressers, having first proclaimed that they will "forget self—our profession first", enjoin their members to be truthful in advertising; though this has not, apparently, diminished the number of bottles upon their shelves containing magic fluids to make hair grow on bald heads.

The retail grocers, after a flourish about "valuing my citizenship and placing my country and my flag next to God", soon get down to brass tacks—namely that there are "too many retailers", that if it is possible to do so without introducing political interference, they favor state licensing of retailers—which of course is a shot at their chain store competitors. Moreover, they are against that prime villain—the price cutter—and to that end they favor a law that will enable wholesalers to support a price maintenance policy. And furthermore, they are unalterably opposed to that abomination of abominations—the factory store, such as Mr. Ford set up in Dearborn to bring the retail profiteers down off their perches. These are "un-American", which is the ultimate adjective of doom.

It would be interesting to know what effort is made by trade associations to enforce these codes of ethics. How many members have been disciplined for violating those lovely statutes about honesty and fair dealing with the public? And how many for price cutting and underbidding and customer raiding? A group at Columbia made a study of 12 codes. Of the 12, but 5 were supported by any effort at enforcement. These were the codes of the lawyers, the doctors, the teachers, the accountants, and the realtors of Detroit. The Detroit realtors expelled 3 men—2 of them for selling property to buyers who were known to be the customers of other members. The accountants suspended 1 man for violating the rules against advertising and soliciting business from a client of a brother member. It is in these portions of the codes that business men are interested, if at all. When you hear a business man boasting how much nobler business has become, you will find by a few questions that he is thinking of the relations of fellow tradesmen with each other.

The New Corruption

In all this we have been examining the long and painfully slow movement forward in what might be called the personal relations of business—elementary problems of honesty in price, quality, and delivery. But there is another region of ethics about which the codes and code makers are ominously silent or vague. Business men have always delighted to sneer at the morals of politics. But now the dishonesties peculiar to political life are finding their way into business.

The business organization today resembles the community organization. Corporation managers are not owners but employees representing large groups of stockholders. They bear the same relation to their stockholders that elected public officials bear to their constituencies. As a result, we find business corporations shot through with all the vices we have become familiar with in public life. If private corporate management were subject to the same scrutiny and publicity as community management, the scandals would shock the nation. Managers of corporations do not scruple to exploit their companies. The executive of a large concern finds in that post an opportunity to own and promote other smaller corporations which deal with and fatten upon its favor. Nepotism runs wild, exorbitant salaries are bestowed upon favored officials, purchasing departments are honeycombed with graft. Corporate managers complain on the one hand that supply houses bribe their buyers and department heads, while supply houses retort that there is no other way to make sales.

In the Teapot Dome oil scandals, the most disturbing phase is not the scandals themselves—for this sort of thing we have always had and will always have with us. The distressing aspect is the attitude of business toward the episode. Two classes of persons were involved in that criminal enterprise—politicians and business men. All the guilty public officials were ousted long ago—flung out in disgrace. But the business men continue to hang on to their jobs and their honors. The Senate—representing the public life of the country—has labored incessantly and against great odds to clean house, and it has succeeded in large measure. But business has scarcely lifted its finger. Recently young Mr. Rockefeller asked for the resignation of Mr. Stewart of the Standard Oil Company of Indiana, and the Chamber of Commerce of the United States passed a resolution condemning business dishonesty. But this scandal has been fouling the air for 4 years and in all that time you will look in vain for any expression from business save one of irritation at the meddling investigations of the Senate.

Mr. Rockefeller asks Stewart's resignation. But he has not given it, and business men doubt that even Rockefeller can force it. It was only a few months ago—after Mr. Stewart's last disgraceful appearance on the Senate witness stand—that he was elected chairman of his company. Mr. Sinclair, within the week following all the exposures and his own confession, by making restitution of $7,000,000 to the company he heads, is again unanimously elected its head. He and Mr. Doheny still adorn the council of the National Petroleum Institute, and Mr. Doheny, in addition, has had conferred upon him by a religious college the degree of Doctor of Laws. *Laws! Heaven save the mark!*

All the other culprits, during 4 years, were renamed to posts of honor in their companies —2 of them refugees from their county—1 hiding his troubled conscience in a European monastery while begging from an offended God the forgiveness his directors accorded so readily in repeated reëlections.

It would not be true to say that no corporation officials are controlled in their conduct by a high sense of duty to their stockholders. One such official was the late Elbert H. Gary. I interviewed Judge Gary a number of times. He never impressed me as a man of strong intellectual gifts, but he brought a stern New England conscience into the corporation board room. He must be credited with introducing the germ of a better morality among corporate directors.

That was something. But it was only a beginning. There is a vast distance to be traveled. There still lingers a fear in the popular mind about corporations. The fear is misdirected. I do not fear great rich corporations, but rather the rich men who control them and employ the opportunities for vast gain which that control gives. Business will begin to move toward a truly higher ethics when it quits making pretty verbal flourishes about God and the flag and service and gets down seriously to the business of outlawing this sort of thing. When the great corporation official who exploits his corporation is written down by business men as a grafter, like the public official who exploits his city and country, then there will be some excuse for boasting of the "morals of modern business."

Observations from the Lighthouse

RHINOLOGY AND INTERNAL MEDICINE

Dr. Charles P. Emerson, Professor of Medicine in the University of Indiana, published an extremely valuable paper on this topic more than a year ago (Jour. Indiana State Med. Assoc., 21:145, April 1928), from which we have abstracted the following instructive paragraphs:

"Perhaps in no field does the internist find as many opportunities for differences of opinion and for serious misunderstandings with a specialist as in rhinology. But it is also possibly true that in no one specialty do the experts differ among themselves in their opinions quite as much as do the rhinologists. Since just at present infections would seem to be a very popular subject, we will begin our discussion at that point. All agree that the nose, including its accessory sinuses, is very frequently the seat of pyogenic infecion; all will agree that the amount of pus which daily can be discharged from the nose is vastly greater than tonsils, teeth, or even a bad appendix can produce. There is no question but that the nose is a well-known source of systemic infection through the blood and lymph streams. And all agree that the nasal pus which is swallowed has a very definite effect on the gastro-intestinal canal. We internists, however, believe that the power of the nose with its cavities to infect the body is not at all in proportion to the amount of freely flowing pus it produces; in fact, that acute and chronic suppurative sinusitis is, in general, an infection of relatively slight importance so far as systemic infection is concerned. We believe, rather, that there is far more danger from an infected nose, the walls of whose sinuses have become transformed into thick pyogenic membranes which produce little or no free exudate, but which have an immense power of germ cultivation, of toxin elaboration, and of toxin absorption. Some of these cases may be later stages of suppurative sinusitis, but many would seem to have been from the first a distinct form, the chronic hyperplastic variety, which often dates to childhood. Such sinuses may for days give no secretion at all; transillumination often gives negative results; the x-ray plates are not always conclusive; and direct inspection may be deceptive since these sinuses open into nasal passages which may appear almost normal. On this point, however, internist and rhinologist often disagree. The latter desires to see evidence of definite pathology before he condemns a nose, and the more pathology he sees the better satisfied he is; but not so the internist. The latter has learned to fear infections in noses which look clear. During the last 15 years it has been one of our pleasures to lecture to the medical students on the history of medicine, and in these, of course, the question of 'laudable pus' receives frequent mention. Since the time of Lister our surgeons have developed a stereotyped habit of mentioning 'laudable pus' always with a laugh or sneer, both of which are hardly justified. Before the days of aseptic surgery the man with a deep infected wound from which pus flowed freely may have had many inconveniences and dangers from this pyogenic infection, but he certainly had a much better immediate chance for life than the man with a somewhat clearer wound, one which healed promptly by first intention, but who, a few days later developed tetanus. Of course pent-up pus is always an evil; 'laudable' pus always flows freely. Even today, free pus has its place. We know only too well that the battle against infection is fought, not on the surface of the infected tissue, but within the tissue spaces themselves; not in the lumen of an abscess cavity, but in its wall. Our irrigations with antiseptic solutions merely wash off from the surface of an infected tissue those germs which can do but little more harm. Blood disinfectants have been disappointing, and are of value only as they aid in encouraging an exudate of leukocytes and blood serum into the advancing edge of the infection. A purulent exudate is our best mechanism of defense for killing and for washing out the germs, and for neutralizing their toxins. That is why a nose with every sinus pouring out pus interests the rhinologist more than the internist; also, why some almost normal appearing noses seem to the internist to be dangerous.

Again, the internist believes that it is infection of the posterior ethmoidal and sphenoidal sinuses which do the patients the most harm, and these the rhinologist finds hardest to examine and the ones whose infections are most often overlooked. These sinuses drain directly

into the mediastinum, producing there a mediastinal adenitis and peribronchial infection which cause, and keep alive, practically all of chronic bronchitis and bronchiectasis, which explains most of our latent bronchopneumonias, and perhaps all of our hilum pneumonias, and which initiate the flaring up of many a case of previously arrested tuberculosis. In addition, it is this form of sinusitis which often causes chronic infectious arthritis, and other chronic infections. With such a list as this to their credit the infections of the posterior sinuses are to the internist among the most dangerous foci of infections of the whole body, are those on which depend to no small degree those other infections which shorten the life and reduce the efficiency of the adult man. And yet in such a case the nose may, on direct inspection, look fairly normal; on transillumination there may be no shadow, and the x-ray plates taken of it may be ambiguous. This doctrine had, however, in the past led to a riot of operating on the posterior sinuses, and this has been followed by perhaps too great conservatism. The point we would urge is that, granting that there is any infection at all in these sinuses, the question of operation should not be decided on the basis of the local nasal conditions but on the condition of the patient as a whole, and that the deciding vote for operation must often be cast by the internist.

On what evidence then shall such a decision rest? First, the general condition of the patient must be such that it requires an explanation; some continuous focus of infection somewhere in the body. The seriousness of the general condition of the patient will, in large degree, determine what chances we are to take in the way of local operations. As an extreme illustration, allow us to cite Streptococcus viridans infection, which causes subacute bacterial endocarditis, a condition usually considered to have an almost hopeless prognosis. But why is it so serious? There is little in the clinical picture, except the prognosis, which suggests any great degree of toxicity of the infecting germ, rather the contrary; the germ is counted as one of little virulence. To say that the development of immunity against this organism is poor is no answer, since the only evidence in favor of this statement is the seriousness of the infection, and that is what we are trying to explain. Clinically, the one most marked feature of these cases is the apparent mildness of this infection, the silence of its systemic processes. Then, is it not natural that its foci of dissemination also should be silent? A few of our cases are now well after 3 or more years. Why? Because we assumed that its focal infections were silent, and succeeded in persuading the surgeon to operate in fields which gave him only the slenderest evidence that there was any trouble there at all. Evidence of course there must be, but the internist, not the specialist, should determine whether or not such slender local evidence justifies serious operations.

Second, the history of the case should suggest also that sinusitis probably is present, even though the appearance of the nasal passages suggests but little. The many cases of sinusitis which followed the great influenza epidemic are much to the point as illustrations of this. We are very partial to the suggestion of a keen rhinologist that influenza is in fact, and might well be named, epidemic sinusitis. That is, that influenza is an infection caused by a germ which has a particular affinity for the mucosa of the nasal sinuses, much as epidemic meningitis is due to a germ which first invades the whole body but which has a particular affinity for the meninges. After an attack of influenza with general nasal involvement it would seem that the infection of the nasal passages clears up promptly, while that of the sinuses may continue. This is important. Sinusitis is, as a rule, due, directly or indirectly, to lesions in the nasal passages—a deflected septum, a spur, an hypertrophy—which hinders free nasal drainage, and the very presence of which would suggest that the sinus behind this visible lesion probably is involved. Epidemic influenza, however, after the initial rhinitis had subsided, would seem to have left the sinuses infected, while the visible areas of the nose look relatively normal. We have the same problem also in many cases of antrum infection which started from alveolar abscesses. Here the nose may give no clue of the infection, nor transillumination, nor x-ray films. Over such cases rhinologist and internist often cross swords. We remind them of a hotel corridor, clear, clean and quiet; but who knows what mischief is going on in the rooms which open onto that corridor but with doors now closed?

Third, while the history of several grippe-like attacks, of frequent colds in the head, of nasal catarrh, may not prove the existence of a sinusitis, they certainly suggest that this should be excluded. The patient says he 'catches cold easily'. As a matter of fact, he does not catch cold easily, but has the same cold all the time. For months this is quiet, then it flares up, later to subside. Such may be caused by a visible nasal lesion, by bad tonsils, or by infected tracheobronchial lymph nodes, but very often by an infected sinus. Especially is this likely to be the case if, after a period of comparatively good health, a 'cold in the head' develops rapidly (in less than one day), and with, from the first, a purulent secretion. Acute rhinitis, even if aided by a spur or other area of pressure, must have its period of incubation and that of prodromal symptoms with watery mucoid discharge. In sinus cases these fail."

Lay Mirror Reflections

THE FAMILY DOCTOR

(From an article entitled "How the English Middle-Class Lives", by Geoffrey Layman, Harper's Magazine, April, 1929.)

I have watched with considerable interest, in the pages of Harper's and elsewhere, the battle in the United States of specialist versus general practitioner. Here in England, notwithstanding a slight tendency to resort direct to the specialist in recent years, the general practitioner, God bless him, still holds his own without apparent difficulty. If we had had to engage a specialist for each of Cynthia's confinements, we simply could not have afforded to have any children; and if for anything wrong out of the ordinary we had to go to a clinic, where neither our circumstances nor our particular physical characteristics are known, we should probably leave it until too late to begin with, and then should get treatment no better, and probably worse, and at far greater expense, than we get from our family doctor.

When we married, Cynthia's family doctor was giving up his practice, and at his recommendation I went to see a man who lived within half a mile of our new home. I liked his looks, told him what my income and position were, and asked him to take us on. His first bill was for bringing Mary into the world. It included all preliminary visits (and there were a good many), all attendances for a month or so after the confinement, and vaccination, and it amounted to £15. It was a long and not too easy, but by no means an abnormal confinement; and at intervals, knowing what husbands feel like on these occasions, especially when they have not experienced them before, he found time to come downstairs and cheer me up. Both Cynthia and I knew that if he had felt the least necessity for the assistance of a specialist he would not have hesitated to call one in. If we had gone to a specialist in the first instance we should not have had half as much pre-natal attention; he would not have been as immediately accessible at any time of the day or night in the event of a premature confinement or other emergency, and he would have charged us not less than £100, a sum which we simply did not possess.

Since then he has brought both boys into the world, has taken Mary's tonsils out, and has operated on Dicky for hydrocele. Whenever he has felt that he would like a specialist's opinion or assistance he has asked for it; but that has been on three occasions only, twice for Cynthia and once for me, when I had all my insides taken out, refurbished, and put back again minus a few bits. And he has never yet sent us in a half-yearly bill exceeding £25; it is usually anything from £3 to £8. When I had my operation he arranged with one of the leading abdominal surgeons of London, whose fee, if I had gone to him direct, would have been £200, to do the job for £70. He himself attended at the nursing home as assistant surgeon, and looked after me during recovery; and in the end set in a bill, which included John's birth and my operation, for £25.

But the fact that, as a rule, he is amazingly cheap is not the only, or even the greatest, merit of the general practitioner. His real value lies in the knowledge and experience which he possesses of the ordinary man and woman in general, and of the individual patient in particular. Our doctor has an intimate acquaintance with the physical characteristics and idiosyncrasies of my wife, our children, and myself. He knows that if Mary or I have a temperature of 100 or so, it's probably nothing to bother about, but that if Cynthia or either of the boys goes up to 99 they must be taken seriously. He knows that because Dick is a bit thin and pale it doesn't mean that he's any less robust than John, who always looks the picture of health even when he isn't well; and that if I get a sudden fit of sickness, it's merely a peculiarity left over from my operation. It would never have occurred to him to suggest that Cynthia should go for her confinements to a nursing home, where she would be among strangers and separated from me; and he had no objection to my being with her up to the very last moment. And I shall not easily forget his yell, through our bedroom door, of "It's a boy" when Dick turned up, a yell loud enough to produce cheers from the kitchen, two floors below, where the maids, almost as wrought up as I was myself, were waiting for the news. That's the sort of comfort you can only get from a family doctor; you certainly won't get it from a gynecologist.

Communications

The following telegram has been received by the Journal:

August 21, 1929

Executive Secretary, Medical Society,
Atlantic City.

Senate bill reduces tariff on surgical instruments to 45% ad valorem.

Fred A. Hartley, Jr., M.C.

We have no further details regarding this matter but think the information should be given to the members of the Society at once.

Current Events

TRISTATE MEDICAL CONFERENCE

The Twelfth Tristate Medical Conference was held at Pittsburgh, Saturday, May 23, 1929, convening at 10 a. m., in the University Club, 123 University Place. The President of the Medical Society of Pennsylvania, Dr. Thomas G. Simonton, called the meeting to order and welcomed the members of the conference. Those present were:

New York: Harry R. Trick and James Newell Vander Veer.

Pennsylvania: Thomas G. Simonton, William T. Sharpless, E. B. Heckel, Lawrence Litchfield, Walter F. Donaldson, Frank C. Hammond, R. R. Huggins and Miss Mary Stewart Blair.

New Jersey: Ephraim R. Mulford, J. B. Morrison and Henry O. Reik.

The minutes of the preceding conference having been published in the state society journals, in part or in full, it was voted to dispense with their reading.

Dr. Reik, Secretary of the Conference, announced that he had received letters of regret at not being able to attend the conference from the following members: Drs. Van Etten, Fisher, Sadlier and Lawrence, of New York, all of whom wished success to this conference and successive ones; Dr. Morgan, of Pennsylvania; and Drs. Conaway and Donohoe, of New Jersey. A letter was also read from Dr. Dougherty, explaining why he and Drs. Wightman and Overton could not attend the conference:

"Dear Doctor:

In view of the unwarranted and evidently premeditated attack made upon the New York State Medical Journal in Chicago and the part taken in it by members of the Tristate Conference as reported in the April Bulletin of the American Medical Association, the Executive Committee of the Medical Society of the State of New York has instructed its Publication Committee and the members of the Editorial Staff to refrain from entering into or countenancing by their presence a discussion of any phase of state journalism at a meeting of the Tristate Conference.

The Secretary was instructed to communicate this decision to the conference.

Sincerely yours,

(signed) D. S. Dougherty,
Secretary."

Dr. Reik said that upon receiving this letter he had communicated with Dr. Trick, feeling certain that the action referred to did not represent the New York State Medical Society. The officers of the New York State Medical Society had replied that they were heartily in accord with the work of the conference and hoped it would continue. Dr. Reik said that he had answered Dr. Dougherty's letter, as follows:

"Dear Dougherty:

This is to acknowledge receipt of your letter of May 13, and to say that I very much regret that your Executive Committee took the action reported; it seems both an unnecessary and unwise procedure.

I was not present at the Saturday morning session of the Secretaries' Conference at Chicago, but I am quite certain that you are mistaken about any preconcerted or planned attack upon the New York State Society—though you must know, as well as I do, that practically every other state medical society in the union has been criticizing your journal for its publication of certain advertisements; the explosion that occurred in November was a natural thing to happen when opportunity afforded.

The topic to be discussed at the Pittsburgh Conference was selected long before the Chicago meeting and without any reference to the advertising question. That question, as related to an ideal state society journal, may or may not be touched upon, I cannot say, but you know perfectly well that the Tristate Conference members from Pennsylvania and New Jersey had and have no intention of "attacking" their associates from New York, and you know that there is no more inoffensive gentleman in the medical profession than Frank Hammond.

I trust you will yet find it possible to reconsider that resolution and bring Wightman and Overton along with you to Pittsburgh.

Sincerely yours,

(signed) Henry O. Reik."

Dr. Reik: I read this letter from Dr. Dougherty with Dr. Trick's permission, as an explanation of why the other 3 members from New York are not with us today.

Dr. Trick: May I explain the action of our Executive Committee? It was done very largely because that group desired it. They felt that in that way they would avoid any possible friction, and as that was their own idea of avoiding the question none of us felt that we wanted to make them feel that they were possibly being placed in an unpleasant situation.

Dr. Sharpless: Do you think that is a permanent withdrawal from the conference on their part?

Dr. Trick: No, I think it was due solely to the character of this meeting, the subject that was possibly to be discussed.

Dr. Simonton: The program consists of a paper to be presented by Dr. Frank C. Hammond, Editor of the Pennsylvania Medical Journal.

WHAT CONSTITUTES AN IDEAL STATE SOCIETY JOURNAL?

Frank C. Hammond, M.D., Philadelphia,
Editor, Pennsylvania Medical Society

The ideal state medical journal is the one which best reflects the highest ideals and aspirations of the profession within the territory it serves. It must report the activities of the state medical society which publishes it, and keep its readers in touch with the work of the organization and of their fellow members. It must advise them of the activities of other related organizations, both within and without the state and within and without the profession. It must report the current scientific developments throughout the world, with especial emphasis upon those which occur within its own state. It must represent the interests of medical folk in the scientific, economic, educational, organizational, legislative, and welfare phases of the practice of medicine. It must be cooperative, not individual. It must preserve current medical history for the benefit of future historians, and must make this available by satisfactory indexing. It must help to educate its readers in up-to-date methods. It must maintain the highest scientific and advertising standards. It must preach progress and improvement and righteousness without ceasing. If it is to be a power in the profession, it must lead, not follow; inspire, not reflect; educate, not merely entertain. And if it is to do all these things, it must preeminently be interesting, attractive in appearance, and well edited from a literary standpoint.

This is a large order, and it is doubtful whether any state medical journal fills it in its entirety. It is unfortunate that mundane considerations must enter into the making of even a medical journal. A certain balance must be maintained between income and expenditure, and when the income is limited by the state-wide scope of the publication, the possibilities of improvement must be similarly limited. However, it is well for the editor and his colaborers to have a target at which to shoot. It is a good thing for their ideals to travel ahead like the storied pillar of fire by night and column of cloud by day; and though they may never see the promised land, yet mayhap it is better to travel successfully than to arrive.

The Staff

The first requisite to an ideal state medical journal is a capable staff. Its size, of course, must be determined by the size of the publication, the numerical strength of the organization, and the financial status of the work. Most of the state journals are published under the supervision of a publication committee, with a paid, full-time editor or managing editor, and sometimes both, to handle the mass of technical details. One or more stenographic and clerical assistants are necessary, also, depending upon the size of the publication and the correlated work centered in the journal office. These assistants should also be trained in the technic of proof reading, make-up, and even manuscript editing. Some of the larger publications have a full-time business or advertising manager, and when possible it is well to divorce the editorial and business management. Seldom is anyone available who combines the diverse talents necessary to succeed in both lines of the work. The qualifications required are so opposite that most individuals lean too far to one side or the other.

In addition to these full-time members of the staff, it is necessary to enlist the services of associate editors who, if they are on the job, will contribute not only timely editorials in their respective special fields, but also such medical news as may come to their attention, and act in an advisory capacity to the editor when requested. In addition, a group of book reviewers is helpful. Each county society should appoint a live-wire reporter to supply the journal with accounts of the scientific, organizational, and personal news

of the profession within his own county. County reporters, if they will, can do much to make a successful journal. The state journal can fairly claim its society's program committee as a part of its staff, since the papers read at the annual session are usually published in the journal.

Another important link in the journal staff is composed of the officers, councilors, and committee chairmen of the state society. These men have not commonly regarded themselves as members of the news-gathering organization, but the idea of the journal as a joint project is taking hold, and in Pennsylvania, at least, a great deal of help is received from these sources. These men cover the state thoroughly and represent its different communities and the various phases of the organization's activities. It is vital that they shall recognize their responsibility for coöperating in the preparation of the ideal state medical journal.

It is the function of the editor or the managing editor, then, to correlate all the material contributed and to present it in an orderly and readable form. When the managing editor handles this technical part of the work, the editor is left free to initiate new activities and to develop new ideas for the improvement of the publication. He should not confine himself purely to a supervisory or representative capacity, but should dedicate his energies to the creative editorial phases.

A smoothly running publication office is one of the choicest works of man (or woman). Without it the creative work is obstructed, and unnecessary antagonisms are created. Mistakes in bookkeeping lead to controversies with advertisers and canceled contracts. Improper filing results in lost papers and letters, wastes time, and greatly hampers the work. An incorrect mailing list means lost journals. Poor proof-reading means errors in the finished product. Amateur manuscript editing has a serious effect on the value of the publication, and creates bitter resentment in the hearts of the contributors.

The editing of a medical journal is a difficult job, with a technic just as definite and equally as difficult as the technic of an appendectomy or a tonsillectomy. The deeper one goes into the study of editorial technic, the more involved it becomes; and in the medical journal, the literary difficulties are complicated by the need for at least a paper knowledge of medicine. Few medical editors have any but a very superficial knowledge of the literary phases of medical-journal editing. There are a number of splendid correspondence courses on editorial work, and many excellent books will help the untrained editor to a better understanding of the problems with which he must deal. The editor of the ideal state medical journal might well devote some time to a study of the technic of his art.

The technical work and the routine work, while of the greatest importance, must of necessity be superseded by the creative requirements. That society which is fortunate enough to number among the members of its journal staff a creative mind should realize that it is the loser if that mind is prevented by a pennywise policy from functioning to its fullest creative capacity. It is a mistake to waste a creative mind on technical details and routine tasks.

The central staff of the ideal state society journal is expected to keep itself informed of the plans and methods of work of the various county medical societies, of the committees of the state society, and of all the related activities of organizations and individuals which comprise the scientific and professional work of medicine, in order to be able to advise how to promote the interests of the organization and its individual members, and to enable the medical profession to fulfill its duty to the public. It is expected to carry information from one component society to another in order to weld the members into a great medical fraternity for mutual help and inspiration.

In order to do this, the journal staff should be represented at every meeting of importance, from the House of Delegates and Board of Trustees down through the committees of the state society to the various county and related organization meetings. If the state journal is to be the voice of the society, it must also be the ear of the society, since speech and hearing are interdependent. Many of the things which come to the representative's attention should not be presented in the journal. Nevertheless, the journal staff, if it is adequate to report the activities of the association, should be in the complete confidence of all branches of the organization. A good reporter never tells what he should not tell—and of course we are speaking of the ideal state medical journal, which would have only good reporters.

The Make-Up of the Journal

Even the ideal journal would be of no use if it were not read, and in order that a journal may be read it is necessary that it have an attractive appearance. Here again our old bugbear of finance makes its entrance. There is nothing which so improves the appearance of a publication as good paper and an attractive cover. The ideal state journal, of course, would have the best. Practically, however, it works out as a compromise between expense and appearance.

Illustrations add a great deal to the value of a publication. They also add a great deal to its cost, and again a compromise becomes necessary. Large type, with leads between the lines, is most desirable because of its greater legibility. This is practicable in a publication which does not present a great mass of material. When there is a conflict between the space available and the material knocking for admission, another compromise becomes imperative, and large type may be used for scientific presentations, while organizational and personal news may be set in smaller type. Such compromises between the ideal and the practical are constantly operating in the state society journal, for none of us has yet reached the publisher's Utopia.

Some years ago the Coöperative Medical Advertising Bureau took the lead in a movement for a uniform size of all state medical journals. That this is an advantage goes without saying. Most of the state journals have adopted the standard size, and it is to be hoped that all will do so sooner or later. We regret that the size adopted was not that of the Journal of the American Medical Association, for we believe it would be an advantage were all organization journals the same. The present size 8″ x 11″ is a trifle small for satisfactory single-column reproduction of many illustrations.

It is to be regretted that so many state journals feel it necessary to carry advertising on the front cover. The ideal state journal would preserve the cover free of extraneous matter. This, of course, would mean the sacrifice of a considerable item of income, since the front cover is regarded as the most valuable advertising position, and until the income ceases to lag behind the outgo this compromise will have to remain in effect in many

state journals. We in Pennsylvania have been opposed to placing on the outside front cover any part of the table of contents. A request that we do so has been made by but one member, but it was not regarded as practicable so long as the space is devoted to advertising.

From an advertising point of view, it is desirable that the advertisments be scattered throughout the text. This reduces the attractiveness of the journal to the readers, however, and spoils the publication for consecutive binding. The ideal state journal probably would do as most of the rest of us do—divide the advertising between the front and rear forms.

A division of opinion also appears in the placing of editorials. A few journals prefer the editorials in the front. Our preference is to have them follow the scientific articles.

Some publications use too much filler material. If the make-up is carefully enough planned, much of this can be eliminated, to the benefit of the literary and financial factors. One of our confréres has stated that his journal would prefer to leave a half-page vacant rather than use a filler. We do not approve of this policy. We are always glad to find a space in which we can use some of the interesting material that comes to us.

Style

Every journal should adopt a definite style which should be followed through to the most minute detail. Each author, of course, has his personal style, and this should be carefully preserved by the editor, unless it conflicts with the policy of the journal—in the use of personal pronouns, for example. Such articles must be adapted to the style of the journal, without, of course, changing the meaning. Some authors object to this, claiming that it does not improve their literary style. They should bear in mind, however, that there is room for difference of opinion in regard to literary style, and that the style of the author is subsidiary to that of the publication. The properly trained and experienced author always takes this fact into account in preparing his manuscript, and thereby avoids much perturbation.

The ideal style for a scientific publication is clear, economical of words, direct, and to the point. Brevity of sentences adds to the clearness, and is a desirable quality. The choice of words to express the exact meaning the author desires to convey is most important, and particular care is necessary to avoid ambiguity or incomplete sentences—a sin to which physicians are particularly prone.

The journal style comprises a multitude of small things, and when the editor begins to fear that he is developing into a "comma hound", he can cheer himself with the reflection that in journalism, as in science, perfection is not a small thing, though it is made up of small things. Questions of style include uniformity of heads, subheads, and type assigned to particular tasks; uniformity in application of punctuation and grammatic rules, not to mention spelling; questions of policy, such as elimination of unnecessary illustrations and bibliography, a preference for an impersonal presentation wherever possible, abstracting of discussions, and many other items of individual taste. It will be the effort of the ideal journal to be perfect in all things, great and small. Style, in the true sense of the word, is a matter of preference, but once it has been adopted it should be adhered to in the minutest detail.

Indexing

Nowhere does style become so apparent as in indexing. The rules for a proper technic in this work are almost as definite as the laws of the land. An incompetent editor may "get by" with any other part of a journal, but the index discovers him to be an amateur. The editor who wants to do a thoroughly satisfactory job of indexing should first study the art. There is no question that a complete index is of great value from both the literary and the historic angles, but again considerations of time and space and cost must enter in and prevent most state society journals from doing a real professional job of indexing. It is a question, in the Pennsylvania Medical Journal, just what should be indexed. We do not have the space, as suggested by our confrères from New York, to give a title to each item of news. In the May number, for example, we published 23 death notices, 5 birth notices, 5 engagement announcements, 5 marriage announcements, and 44 miscellaneous items—a total of 82 items. In the course of a year we publish approximately 1000 news items. Would we be justified in using 4 to 5 pages of the Journal to publish an index including every one of these items? We doubt it.

The ideal index is more than a table of contents arranged alphabetically. It is a logical arrangement of subjects so selected as to render available scientific or historic material to the searcher after facts. Multiple indexes are to be condemned. All material indexed should be included in one alphabet, not subdivided according to various classifications.

Choice of Material

Original Articles. The first duty of a state medical journal is to publish the transactions of its organization. The scientific articles read at the state society meeting must of necessity constitute the matrix of the journal, and should be of such nature as to afford the membership of the state society information on the latest advancements and achievements in all branches of the healing art.

The Publication Committee of the Pennsylvania Medical Journal, after a careful survey of the papers read at the annual meetings, was convinced that some of these papers conveyed no message whatever to the membership, and that others could present their message in a greatly reduced form. The Board of Trustees, therefore, adopted the recommendation of the committee that the editorial office be empowered to reject papers without merit, and to publish in abstract papers that were unduly voluminous. This procedure went into effect in October, 1928. Naturally there was some objection raised by authors of the few papers rejected, and still more objection on the part of some who were required to supply abstracts; but when these authors finally realized that the editorial office was acting under direction of the Board of Trustees and for the best interests of the state society and its official organ, no further objections were received. Rejected papers are returned to authors for publication elsewhere if they see fit, with the understanding that credit is to be given for having read the paper before our state society. Discussions, being extemporaneous, are usually unduly verbose, and are published only in abstract.

We believe this procedure applicable to the ideal state journal. It would not publish any contribution that did not carry a worth-while message, and probably would thin out the planting, like a good gardener, even more than have we this past

year, so that the choicest blooms would have more space to display their charms.

In a publication devoted first of all to the work of the state society, and especially when that society covers such extensive ground as ours, there is little space available for contributed papers. Only voluntary contributions of the greatest merit can be accepted. Commencement addresses, addresses of retiring presidents of county societies, speeches delivered at banquets, etc., cannot be accepted, and are better adapted for publication in county society bulletins. We believe that outstanding articles submitted by authors living in other states may well be included in the state medical journal. It brings in a fresh point of view, and prevents the publication from becoming provincial.

Another mooted point is the publication of extensive bibliographies. At times the bibliography is of more value than the article itself, but this brings up the question whether the article should be published under such circumstances. Bibliographies are so frequently incorrect, and it is so often obvious that the author has read only a small part of the literature included, that it has been tentatively adopted as our policy to omit extensive bibliographies unless the references are discussed in the text of the article. We should like the conference to consider this subject.

Editorials. There are 2 schools of thought in regard to editorial policy. The editor of one of the southwestern state journals claims that his is the only journal with a consistent editorial policy—because he writes all the editorials himself. The Pennsylvania point of view is that the journal is a coöperative undertaking; that the subjects which are desirable to discuss editorially are so diverse that collaboration is imperative; and that the editorial columns can be made much more valuable if contributions are received from those most interested in the subject presented. Our editorials, accordingly, represent a cross section of the views of the Pennsylvania medical profession, and are representative of the organization rather than the editor. It is our feeling that the editor should not usurp the editorial columns to give vent to his personal views. A wide range of subjects should be covered by the editorials, including such topics as scientific discussions, matters pertaining to organized medicine, affairs of general interest, health legislation, achievements in medicine, medical topics of the day, etc. It is our policy not to sign nor initial published editorials. They should be accepted by the reader upon their face value. This is the general rule observed in the better medical journals, newspapers, and magazines.

Official Transactions and Officers' Reports. Official transactions must be published, but such matters as are not of historic value or of particular interest to the majority of readers may well be omitted. It was formerly the custom to publish the membership list of the entire Pennsylvania Society in the Journal. This has been abandoned in favor of a separate membership list, which is distributed only to those especially interested. Copies are available to all members who request them, and are sold to approved commercial firms. This plan has worked out advantageously in our experience.

Our Officers' Department has been gradually developing, and is a popular feature with our membership. In it the officers and committee chairmen release such publicity as they deem expedient, and many matters of importance are presented which should be printed as early as possible, and not wasted by being held over until the end of the year when annual reports are published.

County Society Reports. These are a very valuable part of the ideal journal, provided the county society reporter is a live wire. Simple records of the titles and authors of papers are of no interest, but it is well worth while to give space to abstracts of the papers read and their discussions. When this is properly done a veritable postgraduate course can be assembled for the readers, and an account duly recorded of the medical progress in the counties of the state. In addition, these reports should contain reference to all other important activities in each county, so that all data of value may appear as a matter of history. The ideal state medical journal would thus become a reference volume of considerable historic value. To quote Dr. Olin West, Secretary and General Manager of the American Medical Association: "The state medical journal should record the history of medicine as it is being made in its individual state. . . . It should try to reflect and record the story of the medical profession of its state as it is being made every day." In this process, the county society secretary and reporter are the liaison officers between the editor and the members. The journal office must look to them to carry messages from the editor to the county society and vice versa.

Auxiliary Department. Recently there has been added to the responsibilities of the state journals the publicity incident to the woman's auxiliary, including both state and county organizations. A representative of the state auxiliary should be in charge of this department, and responsible for the material presented therein, subject to approval of the journal editor. All phases of the auxiliary activities may be discussed, and this department has proved to be a valuable and appreciated addition to the Pennsylvania Medical Journal, at least. It deserves every encouragement.

Medical News. This is one of the most popular features of the Pennsylvania Medical Journal, and its development is commended to all who aspire to publish the ideal state journal. News is gathered from all imaginable sources—newspapers, county society reporters, officers of the society who have made personal contacts, county society bulletins, news releases sent to the journal from many sources, and individual contributions. In Pennsylvania we classify this news under deaths, births, engagements, marriages, and miscellaneous. Owing to lack of space, only the bare facts can be given, and all flourishes such as descriptions of the bridesmaids' gowns, the decorations, etc., are omitted. So many summer trips were claiming space that we have found it necessary to limit such news to announcements of foreign or very extensive travel. We have also been forced to discontinue publishing resolutions adopted incident to the death of a member, as they consume a great deal of space and more properly belong in the county medical society bulletins. Neither are we able to publish photographs of deceased members, owing to the expense of cuts and the space consumed.

It is the New York idea, if we understand it correctly, that but few news items should be published, and each should have a title of its own. It is the Pennsylvania idea to pack the department so full of news that it must be printed in small type and without titles. Both methods are good. It is a matter of preference; but the Pennsylvania method requires a great deal more work,

and would not be practicable in some publications.

Book Reviews. It has been customary from time immemorial to allot a more or less considerable amount of space to announcements of books received and book reviews. The review of a book is of value only to the extent that the volume is carefully read and deductions rightfully drawn by one who is conversant with the subject matter and who will give an honest review. Too frequently book reviews are perfunctory and ridiculous, and consequently worthless. In the endeavor to impress this upon our reviewers, the Pennsylvania Medical Journal publishes the following at the head of its book-review column: "From a reviewer we expect information and advice which will guide us safely and to our profit, warning us of the poor, the mediocre, the commonplace, and inviting our attention to merit." Surely the ideal state medical journal would endorse this point of view.

Several years ago, following the prevailing custom in the better class of medical journals and lay publications, we discontinued signing the book reviews. The reaction has been generally favorable.

We have come rather to question the value of book reviews as a department of the journal. While the publisher adopts the attitude that a review is a service to the reader, there is also the point of view to consider that it is a greater service to the publisher in that it provides him with a large quantity of free advertising space. In consideration of the limited space in our Journal, we felt that the pages (some $1000 worth annually computed at regular advertising rates) devoted to reviews might profitably be utilized for other material, and we accordingly announced and have since adhered to the policy of reviewing books only when the publisher was an advertiser in the Journal. There have been few protests, but on the other hand, the policy has apparently had no effect in increasing the advertising of book publishers in the Journal. This is a matter, however, in which we feel that the ideal state medical journal should declare its independence. The instrument or drug manufacturer has as good a right to have his instrument or drugs reviewed as has the book publisher, and the service to the readers would be as great. It is a case of commerical privilege being so strongly entrenched in the practice of periodic publications that it is nearly impossible to eradicate it. If medical journals would stand together, however, it could be done. The difficulty in securing coöperation is due partly to those editors who review all books themselves and so constantly replenish their reference libraries. If they would only realize that it would be cheaper to buy their reference books than to devote so large an amount of journal space to reviews, perhaps they could be induced to align themselves with the ideal state medical journal in this matter.

Special Departments. There are many fields in the practice of medicine that require special attention if the state journal is to do its full duty. For every journal there would be a different alignment, and the probelm must be solved individually. For Pennsylvania, we have found that we can most advantageously divide this material among the following special departments:

"Jots and Tittles", in which short comments are run on timely mattters not important enough to require an entire editorial—a very interesting column.

"Medicolegal and Legislative Information", in which the membership is duly informed upon medicolegal matters in all phases of interest to the practitioner; of matters pertaining to suits for alleged malpractice; of all that is important in regard to pending legislation and the coöperation sought by the Committee on Public Health Legislation of the state society, etc. Timely advice should be given before a session of the state legislature, in order that the members may be instructed as to their duties in shaping a favorable action on matters pertaining to the health of the citizens. Further advice is necessary during the course of a legislative session, and after the adjournment it is necessary to "take stock", to advise regarding accomplishments, the reason for any failures, and the necessity for maintaining an efficient organization of the medical group in anticipation of the next legislative session.

"Public Health" presents matters of preventive medicine—the keynote of the hour. Curative medicine always will be with us, but the more efficient preventive medicine, the less necessary will be curative medicine. The readers should be duly informed of public health matters throughout the state.

"Hospital Activities" affords an opportunity for discussion of the various problems of interest to the physician. This is especially desirable in view of the increasing demands for hospital service, not only from the standpoint of attendance upon the patients therein, but also of administration as well.

"Industrial Medicine" is rapidly increasing in importance, and involves especially the Workmen's Compensation Law. The first of these laws in the United States was adopted in 1911. Since that time all but 3 or 4 states have enacted them in one form or another. Workmen's compensation laws were a complete innovation to lawyers as well as doctors, and they introduced a new point of view into the work of the medical profession in the industrial communities. It is necessary that a state journal should keep its membership informed of the various problems incident to industrial medicine. Not the least of these is the exorbitant fees so frequently exacted by the physician of employees because they are recipients of damages and awards under the compensation law. As Dr. Reik said at a previous session of this conference, "the greedy doctor is a new development of the Workmen's Compensation Law". The general practitioner feels that all the world is against him in this class of work, and he should be duly advised for his own protection.

"Physiotherapy" constitutes one of the biggest departments today in therapeusis, and is increasing in value by gigantic strides. The American Medical Association is devoting a special committee to its activities, and a hospital is not rendering efficient service without a physiotherapy department. All medical schools should include in the curriculum a course of instruction in the subject. Manufacturers of physiotherapy equipment are making every effort to place some sort of physiotherapy apparatus in each home. Disastrous results are being reported, more especially in regard to use of the various forms of lamps used in actinotherapy. The practitioner must realize that he should keep abreast of progress by becoming properly instructed in the "do's and don'ts" in physiotherapy. The lay public is reading with avidity the propaganda that is being put forth—good, bad, and indifferent. The layman naturally will ask his physician questions relating to physiotherapy of actionotherapy, and the physician should be sufficiently well versed to guide his pa-

tient safely as to recommendations and the carrying out of treatment.

The modern physician must realize that the day is past for the practice of medicine to consist of feeling the pulse, looking at the tongue, and writing a prescription or dispensing. In order that he may be properly instructed in up-to-date methods of diagnosis and treatment, the use of instruments of precision, and in all matters pertaining to the practice of medicine, he should read his state medical journal. And it, in turn, must afford him information of a high order. To this end, the special departments are a very valuable instrument, properly used.

Some publications present abstracts of the current literature. Much material of value may thus be obtained, but the Pennsylvania Medical Journal has discontinued this as a department, since abstracted material of considerable interest is usually absorbed by the special departments, and so is classified in a way that makes it more valuable to the readers. A most thorough abstract department is afforded by the Journal of the American Medical Association, and as most of our members receive the national publication, we have discontinued abstracts *per se*, in favor of more valuable material which is available when the editorial staff is sufficiently active. As a general principle, we prefer to give space to fresh and original presentations, rather than to a rehash of material already published elsewhere.

Related Professions. In each number of the ideal state journal there should be some reference to the dental and pharmacy groups. They are inseparably allied with medicine, and every effort should be made to foster closer contacts with them. The coalition means much in better service to the people, and strengthens the hands of each in fighting undesirable legislation. We must keep the 3 groups welded for the protection of their mutual interests.

In presenting these many phases of the practice of the healing art, it must be remembered that even the ideal state medical journal is not intended for total consumption. Every journal, and especially a state journal, has to compromise by publishing a variety of things, hoping that something therein will appeal to each of its readers.

Reporting of Other Scientific Meetings. The regular reporting of the scientific meeting of medical societies other than the state society and its component county societies, is a matter that each state journal must decided for itself according to its facilities. We have discontinued the procedure. We do, however, value very highly the transactions of the Tristate Medical Conference. They afford the officers of our state and county societies in particular and the membership in general very valuable data on the topics under discussion. I am credibly informed that the full-time officers of the American Medical Association and many of the editors of other state journals keep in close touch with these transactions.

Advertising. The advertisements are a very important part of the journal, especially from the standpoint of income. Perhaps the ideal state medical journal would be so endowed that it could discontinue its advertising pages; yet without advertising, an element of considerable interest would undoubtedly be lost.

Are we publishing our state journals for private profit, or for the benefit of our members? Is the type of advertisements accepted to the best interest of organized medicine? The plan of the American Medical Association as to nonsecrecy in the drugs used or advertised to the profession has had a splendid and perhaps unexpected result. It has forced into the open the concealed journalistic supporters of the nostrum traffic, and has exposed the so-called medical journals which did not care a fig for the medical profession they had so long deceived and exploited, and which had been published solely for the financial benefit of the owners and their compliant editors. We can never cease hammering in the point that the professional creation and control of medical literature and publications, indeed their professional ownership, is responsible for a vast deal of the progress made in medical ethics and the art and science of medicine.

The greed of the nostrum seller usually leads him to take one of two ways to delude his dupes: He either "gives" his "great discovery" to the "poor dying sufferer" for little or nothing, "at tremendously reduced prices", because of his "intense love for him and desire to cure him", or he plumply asks an unmercifully high price and demands his money in advance. The establishment of the Council on Pharmacy and Chemistry, by the American Medical Association, with its far-reaching influence, and the organization of the Co-operative Medical Advertising Bureau which supports the requirements of the Council, were the potent factors in sounding the death knell of proprietary remedies. At the present time only 2 of the state journals do not support the standards of the Council, but we are very sure that the ideal journal would do so.

We do not attempt to criticize any state journal which does not deem it expedient, or advisable, or to its best interest to be associated with the Co-operative Medical Advertising Bureau, although we do feel that it would be desirable, from the standpoint of an efficient organization, for all the state journals to be associated with the Bureau. The Bureau is owned by the state journals; it should be governed by the will of the majority of the state journals; and any journal which has a difference with the Bureau should bring its complaint out into the open to be adjudicated through the good offices of the other journals. When the Bureau is deprived of the support of any one of the journals, it loses just that much in efficiency for all the journals. We do most thoroughly advocate, also, that those state journals which are not associated with the Bureau should not lower their advertising ideals, but should continue to support the standards of the Council on Pharmacy and Chemistry. We do not see how they can do otherwise and still remain loyal and true to their state societies. There can be only one standard in this matter. The membership of the state and county societies are continually being instructed in the higher ideals of the reforms created by the work of the Council. What must this membership think of their state journal when it flouts this policy—and all for the matter of a few dollars of income?

The laws that have been framed, the orations declaimed, and the vast amount of midnight oil and printer's ink which have been spent in one attempt to blot out the curse of the nostrum evil have not been all in vain. But if the state medical journals fail to support the reforms thus won, how can they bring pressure to bear on lay publications when they violate medical advertising ethics?

An advertising agency recently offered to place in a thousand leading dailies in the United States, "as telegraphic news items, without any of the

earmarks of advertising", anything about "your business that you want the public all over the United States to know". Of course this is a misrepresentation, but not quite out of the whole cloth. Doubtless there is altogether too much truth in it, and the fact gives us a healthy skepticism as to the morality and trustworthiness of the newspaper. It also suggests that our professional withers are by no means unwrung. It would be interesting could statistics be gathered as to the proportion of medical journals in which advertisements appear as news. Very apropos is the following newspaper waif that from some good source has drifted to our desk. "It may be set down as a basic principle in advertising that circulation without character amounts to nothing; that character without circulation is better, and that circulation and character together are best".

It is appropriate for physicians to observe the customs of their respective communities. May we venture to suggest, however, that it is more than time to discontinue the custom of placing a card in the local newspaper or in the advertising columns of the state journal? If this is right in principle, then it should be universally adopted; if it is wrong in principle, then it should be universally rejected. As it is wrong in principle, we feel that the ideal state society journal should not accept this type of advertising.

In concluding, permit us to quote the following statements made by Dr. Morris Fishbein, Editor of the Journal of the American Medical Association, in a discussion of the paper, "The State Medical Journal—Its Peculiar Field", read by Dr. Frank Overton, Executive Editor of the New York State Journal of Medicine, at the Annual Conference of Secretaries and Constituent State Medical Associations, held at Chicago, November 16-17, 1928:

"Many state medical journals have changed their forms 5 or 10 times in a period of 15 years, varying with the change of editors and the adoption of new editorial policies. . . . It is my conception that the editor of an organization publication edits that publication for the publication and not for himself. . . . It is the duty of the editor to reflect the policies of the state medical society in the journal, and not to put forth his personal opinions if they be opposed to those of the organization. . . . Some of the state medical journals do not seem to have any policy except to print the transactions of the state society as it meets, to print the papers offered before state societies, apparently whether the papers are good or bad; in other words, merely to record certain activities. . . . Some of the state journals are distinctly individual, and particularly seem to reflect fully the activities of all the county medical societies in the states they represent. . . . It is obvious that in presenting medicine to its readers, the state journal should present a consistent whole. Everything, as a matter of policy, should represent the will of the society. Everything in the periodical, from its front cover to its back cover, including the editorial matter, all the reading matter, and the advertising matter, should represent the will of the society from the point of view of scientific medicine."

Discussion

Dr. J. B. Morrison (Newark, N. J.): The opening sentence in this paper is the key-note to state medical journalism. The essayist says: "The ideal state medical journal is the one which best reflects the highest ideals and aspirations of the profession within the territory it serves." What a field for the state medical journals of Massachusetts, New York, Pennsylvania, New Jersey, Illinois, Michigan, Ohio and other leading states if they follow this idea. Then, there would be no one-man state journals but each would reflect the highest ideals and aspirations of the medical profession, and in the states where these are not high the Publication Committee and the Editor should make the attempt to bring them up to this high level.

I like, too, that sentence: "If it is to be a power in the profession, it must lead not follow, inspire, not reflect, educate not entertain." We must choose editors who will be leaders in medical thought. The work may be divided into many departments. One man, one mind, cannot run it all.

The author strikes another key-note when he says: "That society is fortunate which possesses in the editorial staff a creative mind." The state medical journal always measures up to the creative mind behind it. Every such journal should have a definite policy outlined by the Publication Committee and the Board of Trustees, and the Editor should follow that policy. The Publication Committee should be empowered to reject papers, though read at annual meetings, which are not of real value. They should never have been read, why publish them? If the authors of other papers will not furnish suitable abstracts, they must anticipate a free use of the blue pencil.

Bibliographies are a stumbling block to most editors. Shall they, or shall they not be published? They are frequently incorrect, not read by the essayist himself, and the space they occupy should be filled by something more instructive. Why not decline to publish any of them in the Journal, but hold them for insertion in the reprints, where the space they occupy is paid for by the author?

In the line of editorials we feel that the editor should seek assistance to thoroughly cover the field of scientific and correlated subjects. Scientific medicine, organized medicine, the trend of medicine and of medical education, medical achievements and aspirations, are subjects where the editor should seek assistance from the best minds in his state, if the subjects are to be handled to the best advantage. A note over the editorial page should state that these editorials are not always written by the editor.

It is always a question how much the "Official Transactions" should be cut. They are the history of organized medicine in the state. This is a matter of policy which must be decided by the Publication Committee or the Trustees. Personally, I would use the blue pencil rather freely.

I like Dr. Hammond's idea of an "Officers' Department", where Trustees, Officers, Councilors and Chairmen of standing committees are expected to submit important matters for print.

Each editor must develop his own "Special Departments", and the value and worth of the editor is shown in the way he handles that matter. They can make or run down the journal. For the most part they should be edited by special men, experts in each branch, who contribute articles regularly. Of these departments the medicolegal should be under the guidance of the counsel and the welfare or legislative committees. There is a great deal of medicolegal information to be published for the benefit of our members.

In the special medical departments I would stress that of "physiotherapy". Here is a new field being preëmpted by the quacks and the

manufacturers and, as usual, we are slow in reaping the advantages in a new field. Our members must be educated in the possibilities, and the public protected against both the charlatan and the manufacturer. In this field the manufacturers are as money-mad as the quacks. A great deal of injury is being done by self diagnosis and treatment.

Let me say a few words about advertising. The author again strikes a key-not when he asks—"Are our state medical journals published for profit or for the benefit of our members?" If the latter is our aim, then only such articles should be accepted as the entire Publication Committee or the Board of Trustees feel can possibly be of benefit to our members. All such articles should be ethical and it is no editor's individual job to decide which are and which are not of ethical character. Herein comes the field of the Council of Pharmacy of the American Medical Association, and I feel that, whether or not we accept the services of the Coöperative Advertising Bureau, we should accept the guidance of the Council of Pharmacy. By no other method can we have universal protection and guidance. If we are to avoid the chaos of medical advertising we must accept the opinion of this Council as a standard.

Dr. Hammond is to be congratulated on this lucid, far-reaching analysis of what a state medical journal should be to reflect the ideals and aspirations of the medical profession.

Dr. Harry R. Trick (Buffalo, N. Y.): A friend of mine used to say that he could talk best on something he was not familiar with because he was not hampered by facts. I feel that if that were true I might take up a great deal of the time of this conference, to no purpose however. Nobody is more familiar with the construction of an ideal state medical journal than Dr. Hammond and I doubt if anybody would presume to criticize any of the comments that he has made. But as I listened to his paper I was impressed with the thought that much depends on the alertness of that group responsible for the publication. Conditions change so rapidly. He said in his paper that the journal not only represents the voice of the profession but that it also represents the ears and they probably can hear things considerably in advance of their appearance and in that way warn and instruct the profession before it would as a whole become aware of the conditions, whatever they might be.

I do not feel that even ideal state medical journals can be standardized, as conditions vary so greatly in our various states. In fact, variety is still the spice of life. I feel that Dr. Fishbein's comment in regard to state medical journals is not altogether applicable, for that reason very largely.

The greatest difficulty of all is to get the journals read. We have a great many excellent state medical journals and they are not read. Of course, that does not mean that we should lessen our attempt to produce an ideal state journal and I wish somebody could devise a way to have them read.

I think it is not generally understood among the membership of our various state societies what the place of a state medical journal is. I do not think it should be compared with those journals that have to do with scientific research and matters of that sort. I think the most frequent criticism of our state journal is that it does not compare with other journals of that type. It is not supposed to. It is first of all the official organ, and if we have available some first class scientific paper we might include it, of course, but my idea is that the publication of scientific papers is not of major importance as compared to the other needs of a state journal.

This question of advertising is, of course, a sensitive spot. I do not feel that I am in a position to discuss that from the standpoint of our Publication Committee but I happen to be familiar with certain facts that may help you to understand our position. For instance, in the Journal of the American Medical Association there are published advertisements of concerns that are not permitted to do business in our state. That is rather awkward. The men wonder why such and such a concern has a full page in the A. M. A. Journal and our journal does not carry any such ad. We have felt that the Editor of the Journal of the A. M. A. ought to at least have a note at the bottom of that advertisement stating that it does not apply to New York State, for instance. There is not any real desire on the part of our Publication Committee, I am sure, to break away from the Bureau of the A. M. A. Perhaps some later conference, when our group is less terrified at the idea of a frank discussion, may bring us a little closer together. I think that is what all of us have in mind today.

I have enjoyed this paper very much indeed and only regret that members of our publication group could not see their way to be with us today.

Dr. H. O. Reik (Atlantic City, N. J.): I supposed that I would not be called upon until all the officers of the state societies had spoken, but I will accept the opportunity to speak at the present moment, since you have called upon me, because I want to ask all of you to criticize the New Jersey State Medical Journal, just as I am in my presessional report, published in the May issue, asking our own society members to criticise it. One of the great difficulties that an editor has to confront, is that of finding out whether his work is satisfactory to the people who employ him. I have, since accepting the editorship in New Jersey, instituted a number of new departments in that journal and have been utterly unable to find out to what extent they are approved by the members of the society, for we seldom hear from a member unless we chance to make a mistake. If there is a printer's error or somebody's toes have been stepped upon, we hear about it; otherwise very little information comes to us. So I shall ask you to advise me about those points.

Dr. Hammond's paper is perhaps the most important one to me that has been presented to this conference, because I have gathered from it a great deal of help and I shall certainly institute some changes in our journal to make it conform more nearly to the ideal journal that he has described.

He started out by saying that the first function of the journal is to report the activities of the state society and its component organizations, and Dr. Trick expressed my view when he described this as something in the nature of a "house organ" rather than a scientific medical journal. We have published the papers read at the state society meeting and, in so far as we could, the best of the papers that have appeared before the county society meetings, but the rest of the journal has been utilized almost solely for 2 purposes: (1) To keep members informed as to what is going on within the organization; (2) to inform concerning correlated work outside of the organization. It is difficult to advise always about the work of related outside organizations, to the extent that I

would like, for the want of space. The same thing applies to the report of scientific developments throughout the world. Those things appear in the A. M. A. Journal and we have duplicated them only to a limited extent.

In using the journal editorially and in these different departments for educational purposes, perhaps growing out of the fact that I had been a teacher before I took up this work, and with a view to making it present something in the nature of postgraduate work, I have had the fear many times that I might be doing what Dr. Hammond in his paper approves, that of "preaching progress and improvement without cessation". I feared that I would be accused of being too much of a preacher, constantly harping on the same thing in trying to drive home some point. But I have learned from experience that one gets educational facts over only by constant repetition. To that extent we have attempted "to inspire rather than reflect, and to educate rather than entertain", though we have used something in the nature of entertainment with the idea of attracting members to that part of the journal which carried the educational features.

I like the outline and plans Hammond gives for an editorial staff to carry on the work, and was interested in reading Dr. Dougherty's presessional report to the New York State Society on the manner in which that state journal is run with an Editor-in-Chief, an Executive Editor and a Literary Editor, and 2 or 3 Assistant Editors for proof reading. Of course, the editor in New Jersey has had to be all of those things plus the chore boy. Please remember that, when you note an error: the proof is often read on a train or a bus traveling from one point to another, and the editor has had to read, personally, manuscript, galley proof, page proof, and close the forms at the printing office, because he has not had all this recommended help. Perhaps I will direct attention of our state society's officers to that staff formation. However, they may decline to give me help on the ground set forth by Dr. Hammond's recommendation regarding the value of a creative mind, for if they should ever turn this mind loose to create new departments for the journal, I don't know where it would end.

With me they have been extremely courteous in New Jersey, inviting me to sit in always with the Trustees and the Welfare Committee, of which I have been made Secretary, and with most of the standing committees, so that the editor is kept informed as to what is going on, what has been done, and what is planned to do for the future; and I think that is an extremely helpful point in developing the journal.

As to appearance of the journal, we would like very much to improve that but we have been trying in New Jersey to make this as nearly as possible a self-supporting affair and this has necessitated printing the original articles, editorials and some important items in 10 point type—I would like to see it increased to 12—and putting in the county society reports and news items in 8 point form. Small type does not entice a man to read. When you see a lengthy Tristate Conference Report (18 pages in our April issue) in small type, it is not so attractive as it should be. If we could afford to increase the size of the type, I think it would have a very beneficial effect and would probably be worth the additional cost.

We have copied the plan of the Pennsylvania Journal in many respects, such as following the original articles by the editorials. We have, however, disposed of the question of death notices in another way. We include resolutions in the county society report but in so far as we have been able to do so, we have followed the editorial page with a page or more of "In Memoriam", and when a prominent member passes away we have published a photograph. We have felt, in putting the death notices in a prominent position, that we were paying the last token of respect that we could to a passing member and that it was advisable to put it in a prominent place rather than to have it lost in a death notice column in some other portion of the journal. I think it should either be left out entirely or put in a prominent position.

We have tried to avoid what Dr. Trick calls standardization. I should not like to see the journal in all its departments literally standardized. We have tried to have a standard style; that is, for general spelling we follow the Standard Dictionary and for medical spelling Dorland's Medical Dictionary, and we have certain forms which we have insisted on being adhered to in general, but beyond that we have allowed the authors as much latitude as we could. To have all the reports read exactly alike would be extremely dull and uninteresting, so I have sought for uniformity without producing monotony. Many of the original articles submitted are not fit for publication, from a literary point of view, that is very certain, but I have felt that we should not reject anything that we are not forced to, because, after all, each member of the state society is a stockholder in the journal, and I have also felt that it was desirable to help each member as much as possible and I have expended a good deal of labor on the revision of some of those papers.

We have attempted to publish papers in the order in which they were received, in so far as possible, and yet to link together papers that are somewhat related and to secure in each journal a variety of topics. If the journal is limited to a symposium on one or two occasions during the year, that may be wise but in general we have wanted to have each issue supply every reader with some topic that would be of interest to him. The New Jersey Journal has grown very considerably in size during the last few years and whereas we used to publish only an average of 4 or 5 original articles per month, we are now compelled to publish an average of 10 a month. Some limitation, of course, will have to be placed upon that and hereafter we will probably have to reject some articles of the type that were formerly accepted.

This is another editor who is compelled to say that all the editorials, whether good or bad, have been written by himself. I have raised the question in my presessional report whether we should hereafter present some strictly medical editorials in the journal. I have avoided that heretofore, relying upon the A. M. A. Journal and scientific journals to supply that, and have editorially discussed only organization matters, legislative questions, problems that have arisen in the different county societies. But it is a question in my mind whether or not we should carry each month some editorial relating to a medical topic and I have suggested that members be invited to write those editorials. I have suggested that they be signed editorials but Dr. Hammond has convinced me that perhaps that would be unwise. It might be better to withhold the name of the author of such editorials unless it be requested.

The county society reports have seemed to me

important, but we have a system that differs from most other states. Every county society in New Jersey has among its officers an elected reporter. That is of great advantage. I have been able to get those men to submit a report. During the course of the year we have published the reports of every county society meeting, and usually within a month of the occurrence of each meeting. Now there are good and poor reporters. Some men are elected to such office whom we simply cannot educate into the art of reporting, but we have some exceptionally good reporters, and it has resulted, in my opinion, in giving us a mass of scientific material quite as good as we find in the original articles. I look upon the county society reports as one of the best of our features.

We have followed the Pennsylvania plan rather than the New York idea regarding news items. Items clipped from the newspapers are all sent to Dr. Bennett's office; the business and advertising office is entirely separate from the editorial office. I supply him with such news items as I happen to get, to be used as filler material, and in that way we get rid of, editorially, some things that we have not space for, and they are out of the way when it comes to binding the journal.

We have used a department called "Current Events" for publication of testimonial dinners, banquets, etc., which we want to record as a matter of recognition to the individual and as a matter of history of what has been happening in the state.

The question of abstracts was put on a new basis in the beginning of my work, as a result of my previous work with the American Institute of Medicine, in publishing the International Survey. We take each month one topic or certain topics that are correlated, look up the most interesting articles that seem worthy of abstraction, make the abstracts and then prepare a running story of that subject, publishing it under the head of "Lighthouse Observations".

Book reviews have bothered me as much as anything else. I was disgusted with the usual type of book reviews appearing in medical journals and tried a plan of getting one man to take entire charge of that, to review the books himself or to select specialists to review these books and thought we might in that manner get worthwhile, readable book reviews. The plan has worked well but I have about reached the conclusion that, for business reasons, it might be advisable to drop book reviews entirely or else to publish once a year a list of the really worthwhile books that have come out during the year, with some short comment as to why we consider them worth reading.

The other departments that we have been using in the journal, you are all familiar with. We have carried monthly a Department of Medical Ethics, a Department of Medical Economics, a Department of Esthetics, and recently a department that we have called Collateral Reading. The editor felt, not that New Jersey was worse in that respect than other states, but that the medical profession needs constantly to study the question of ethics. I have been fortunate in getting one of our members to give us an article nearly every month, one of the older members of the society who writes ably and who usually gives us a short, crisp article that is worth reading. Medical Economics I have picked up wherever I could. As to Esthetics and Collateral Reading, it seemed necessary to furnish something in the nature of entertainment and to direct the physicians' attention to something other than medical affairs. The average practitioner pays too little attention to nonprofessional, or even semiprofessional subjects that it would be of benefit for him to consider. There have appeared during the last few years a large number of books and of magazine articles, which are being devoured by the public, that bring about occasionally a situation where the intelligent, or at least well read, patient is better informed about some medical problems than the attending physician, and I thought if we could get his attention directed to some of these books it might be helpful.

What the effect of these unusual medical journal departments has been I do not know, and I should like you folks today to tell me what should be regularly left out of the New Jersey Medical Journal or some other things that might be introduced as a beneficial substitute.

Dr. William T. Sharpless (West Chester, Pa.): I am in Dr. Morrison's class, I have had no experience in journalism and I expect that what I shall say has very little value. Dr. Hammond in his paper, which I would like to accept absolutely and entirely so far as his recommendations go, says that the purpose of a medical journal should be to educate and not to entertain. Dr. Reik has introduced some questions as to whether entertainment is not a proper subject for the medical journal, and I think it is. If the purpose of a medical journal is to educate entirely, there is not much use for the column of "Tonics and Sedatives" that comes out in the American Medical Association Journal. I will admit that it is to me entertaining, however.

One matter that I had particularly in mind was a Department of Medical History. I think there has been a great expansion of interest in medical history in recent years and I believe that Dr. Osler has been largely responsible for that. I am sure that my interest in it is entirely due to Dr. Osler, first as a medical student and later as a hospital intern under him. The Annals of Medical History is an excellent publication. Dr. Reik and Dr. Hammond have both said something about the good appearance of a journal; so far as typographic effect, illustrations, etc., are concerned, there is no journal, either medical or otherwise, that has those advantages developed to such an extent as the Annals of Medical History. I was in London a few years ago and in looking over the list of medical journals at the Royal College of Surgeons found that there were very few of the United States publications, but I did see the Journal of the A. M. A. and the Annals of Medical History. This illustrates the interest in medical history that exists in the profession at large.

I think that we might well have biographic sketches of some of the doctors who have been prominent, those who have lived in earlier times. To illustrate this, in the county in which I live, in 1853 to 1855, that county in conjunction with an adjoining county published a little journal which they called the Medical Reporter; and in 1910-12, it was still called the Medical Reporter when the journal was again revived. In those issues had been given sketches of doctors who had practiced in those counties in the last hundred years or so, written by Dr. Darlington, a botanist, a member of Congress, and a very important person generally. He remembered not only those people whom others had forgotten, but he had learned much about the people who had gone before him. Sometime ago, the Chester County Medical Society celebrated its One Hundredth Anniversary and it

seemed necessary to have a history of the society written. In doing that we found a perfect mine of information in the little sketches that Dr. Darlington had written. I believe a feature of that sort could find its proper place in the state journal if the size of the journal will permit it, and that it would be a matter of interest to a very considerable and growing number of people.

Dr. Edward B. Heckel (Pittsburgh): I have enjoyed Dr. Hammond's paper very much. It is very comprehensive and complete in all its details. In the matter of signed editorials, in the Journal of the American Medical Association no editorials are signed and yet those are not all written by the editor, not by any means. The most important ones are written by men who are most capable of writing upon selected subjects and they are not signed because as a matter of general principle it is not wise. The current comments are usually written by the Editor.

The matter of advertising is, of course, a very important subject with any medical journal because it depends on that for its financial support; and, on the other hand too, the advertising pages are very important because they keep the profession in general posted as to what is going on. I, myself, like to read the advertising, not only of our medical journals but of other publications, because they are an index of the progress of the world. Of course, the advertising pages should be, like Cesar's wife, clean and above suspicion, and it is sometimes difficult to hold that. For instance, the matter of card advertising for John Smith, who may be a gynecologist, may be right in the state of Texas and wrong in New Jersey. It should be wrong everywhere. Those things do not appeal to me personally and I doubt whether they do the individual any good. The best men, in those states where it is permissible, do not insert their cards in the state medical journal.

In the matter of death notices, this is carried out rather satisfactorily in the Journal of the A. M. A. They are published once a week and sometime occupy several pages of the journal, but that seems with us a necessary function of the journal. With the State Journal I think it is quite as important to keep tab on those that pass away. It does not require much space but a little space is well spent. As to the matter of illustrating the journal with pictures of deceased members, I think that is up to the state journal; whether it considers the member sufficiently prominent and has the space available.

Very often some papers read before the state society and before various sections of the scientific assembly of the A. M. A. are not quite worthy of publication. We have divided rejection responsibility with the Board of Trustees; the editor is really the man who makes the suggestion that a paper be rejected and if he needs any backing the Board is ready to support him. I think that is a wise provision for a state journal. It sometimes happens that some of these papers are not what they should be. We have had that experience every now and then in the Journal of the A. M. A. and it was felt wise to shift the responsibility to the Board.

The question of adopting style is also important. The man who writes the paper thinks he knows all about it, and of course language is only a means of telling the other fellow what you know, but it is sometimes difficult to express that idea clearly and succinctly and the editor is there for that purpose—to make the necessary corrections. On the other hand, it is not the function of the editor to rewrite the paper. That is asking too much of him. It is all right for him to inject a certain style, which is a good thing from the literary standpoint both for efficiency and for economic reason, as it saves labor in type setting and proof reading.

It takes a great deal of wisdom to edit a journal successfully, and I think the journals represented here today are well taken care of. I, of course, feel that my own state occupies a very important place. New Jersey and New York have also good editors. Editors are not born, they are made; a man may have a certain aptness for that work but it also requires a certain amount of education and training to fit him for the work. And when you find a man who shows aptness, keep him in the position. It is not wise to change editors frequently.

It is said that an honest man is the noblest work of God. I know a number of men who could be classified as honest but who are really rascals. I think that should be modified and, as Dr. Hammond suggested, I think I would express it: a man must not only be honest but he must be sincere. It requires sincerity to run the advertising pages of any journal, and I think we have represented here not only honesty but sincerity also. I congratulate you on this little meeting, and Dr. Hammond especially on his very well prepared paper. Conferences of this kind are very important.

Dr. James N. Vander Veer (Albany, N. Y.): I believe I might be called a heretic today because I started as an editor of a school paper, trying to find out what the school boys wanted, and in listening to this excellent paper of Dr. Hammond's I took unto myself the personal attitude of what I would like to see in a state medical journal.

Now we might divide the topics into 3 parts: First, the economic as related to the state medical journal and how that journal shall be run; second, the journalistic or scientific portion of the journal that will be of interest to our members; and third, the news items that might be of interest to the medical profession and to the public.

Whom are we serving when we edit a medical journal?—is the question which occurs to my mind. We have in the state of New York about 3000 doctors in New York County, about 2000 over in Kings County, and about 1000 in the Bronx and Queens Counties. We have then about 6000 doctors represented there, and up the state we have about 6000 more doctors who are members, making about 12,000 in the state society. That is the one part of the clientele whom we must serve and it is the group for whom we must choose a middle road as to the service delivered. It may interest you to know that in the State Education Department there is now a medical library. They have handed over to them every year perhaps 150 to 200 sets of our state medical journal because that is the repository of our books if we want to get rid of them. Recently, Dr. Sadlier sent his Transactions of the Medical Society of the State of New York from the first volume down to the last, with the loss of but one volume, to the State Library and received from them the statement that they had about 55 full sets on hand. At the same meeting, Dr. Ross, of the Publications Committee, told me that he had just sent to the library for certain volumes of these Transactions and they had sent him a whole set with their compliments, which shows the exchange which takes place in our Medical Library. However, in talking with the librarian, I have been very much interested

to learn from him that there is no complete set sent in to him that has not been clipped in some of its pages, so it strikes me that physicians do not read the entire medical journal. Therefore, the question is what do they read in a journal, and I suppose the answer would be those articles which alone interest them. Turning to the last issue of our journal, I question whether I have any interest in many of the subjects and I would like to be able to delete from our journal such subjects and just keep those articles which are interesting to me and which touch upon my subject. In other words, I would like to see a *loose-leaf* medical journal so that I might take the articles out that are of interest to me and keep them together because they are supposed to represent the news of the last 5 minutes before the journal went to press. I made a notation coming down on the train. I have 11 journals, 5 sets of volumes like the International Clinics, and many quarterlies that I am supposed regularly to look over in order to find out the articles in which I am interested. Then at the end of the year come along these International Clinics with their digests. So, whom do we serve and how should we serve them is, I think, one of the paramount questions.

To study this from an economic standpoint, I believe that we are starting in New York State on the proper idea, not for the present but for the future in our economic life. We are setting aside certain sums of money from our dues for specific purposes, owing to a Board of Trustees that is as hard as the average Easter Egg. They have taken our money and allocated certain definite sums for a Journal Fund and have said, if possible, we want to save $150,000 in the next 5-7 years for this purpose so that we can publish a journal that is not dependent upon advertising for its income. I believe medical men should be made to see that they should not depend on their advertisers for income. In fact, I believe we should tax ourselves in order to get this medical knowledge correlated by our Boards and our state societies and brought to us each month or bimonthly as the journals are pulished. Therefore, while we may realize that the economic element enters into it, I rather surmise that a lot of what we publish is material that is not so valuable to us as we may think. Inasmuch as we in Albany see in that Medical Library so much of the material cast away, I question whether it is wise to take into consideration what we are now doing instead of what we should try to do.

As to the journalistic and scientific articles, each editor has said that practically every article that comes in is verbose. If we are to have paid editors, is it not wiser for us to get the meat in the cocoanut set before us rather than with the shell on the outside which we have to crack through? In other words, a journal that has in its scientific aspects a digest of the articles, perhaps with a little comment on the part of those who are best able to give it, the ablest men in the various branches of medicine, rather than to publish 2 pages of something that possibly is to be and something that possibly is not to be. I doubt whether the average country practitioner, represented by 9000 people in our own state, will have any particular interest in many of the articles published in our own state journal. At the same time, a reference to the article with a criticism or short discussion, I think might be of value to him. I believe that our local county or district publication should have in it very little of scientific matter. I think our state journal should have the various headings and subheadings, such as Dr. Hammond and Dr. Reik have pointed out, and such as we have attempted in our own medical journal for statewide reading. We can get our scientific articles elsewhere and keep ourselves up to the minute in new medicine. It is for the larger journal, our national journal, to give us the correlated ideas of these various state journals and the national and international medical discussions.

As to book reviews, I believe we should have them. I only go through them and check those things that I want to look up. Perhaps at midnight I am reading the book review that I checked during the day. There is so much being published today that I often find I want this or that book because it contains perhaps one single chapter on some phase of my work. Yet I know that books are to a very large extent but rehashes of previous ideas of other physicians grouped together and are often a year or more behind the times. Frequently we have read the same thing in the medical journal, and yet we may want the books for reference work.

Dr. Hammond spoke about getting the news in the journal from the different organizations. One thing I got from the last Tristate Conference was the fact that the Field Secretary in New Jersey is so active in going about through the different counties and it seemed to me that he or she should be the one to collect from the local county societies these bits of information. In New York State we cannot get the news from the county societies as we would like, and when we do get it there has to be much reëditing, and I am advocating in my inaugural address to our state society next week that we try to organize our woman's auxiliary in New York State, which is nil at the present time; that we employ a field secretary under the jurisdiction of our Public Relations Committee: I am going to suggest to the Editor of the Journal that the field secretary can furnish him with much information as he or she travels around the state, relative to county societies, their strength and their activities. We are trying very hard to get a Public Relations Committee in each county. Out of 62 counties we have but about 25 committees formed in the last year and a half. It will link up eventually with our health program and I believe we can furnish information to the state society members that heretofore has been untouched.

Lastly, I did not hear Dr. Hammond mention in his paper one thing which lies very close to my heart. I hate to pick up my daily paper in Albany and see an article each night by one Dr. Baker, I believe, and an article by Senator Copeland for which I understand he receives $20,000 a year from the Syndicate and the lady who writes the article receives $2500. I believe that the editor of the medical journal or some one within the state society should act as the liaison between the medical profession and the public in putting forth articles, perhaps by some syndicate method or, as is done in Illinois or Indiana, sponsored by the editor of the medical society journal. These states at the last meeting of the A. M. A. stated that there was economic gain now coming into the journal from these articles. This is a field that our journals have left untouched and I believe it should be taken up in order that we may rightly put before the people in good language those things which they ought to know and which they can learn from authoritative sources. Inasmuch as the repository of much of this work is in the hands of the medical journal, it should perhaps

come from there and be given to the people by them.

Dr. Ephraim R. Mulford (Burlington, N. J.): I should class myself in with those speakers who said they knew nothing of medical journalism, never having had any experience in journalistic work. I came to Pittsburgh today really to listen and indeed it has been most instructive, this splendid presentation by Dr. Hammond and the discussions of our own secretaries and the other distinguished gentlemen.

I feel that nearly all of the points brought out by Dr. Hammond have been touched upon in discussion. I feel further that the creative minds at the head of these journals represented here today have given much to the general practitioner, and he is greatly indebted to these splendid men for the status of medicine in our 3 states. Our own journal, in New Jersey, has about trebled in size in the last 5 years and it has far more than trebled in efficiency. During the last few years I have followed rather closely the Pennsylvania and New York Journals and notice they have increased also in efficiency and size. I know that our Editor has been very much handicapped by lack of funds. In the very last issue of our journal we had to diminish the size because the funds were inadequate to publish material in hand. I shall bring this subject up at the current session of our House of Delegates meeting in an endeavor to bring about some plan so that the editor and the journal shall not be handicapped in this manner.

One of the big factors that the journal should bring out at the present time is the woman's auxiliary. Having spent 50 days of this year in traveling about the State of New Jersey, coming in contact with the different doctors and the different leaders of the county organizations, and the leaders of the women's auxiliaries, I feel that there is great need for a correlation of a coördination of the different county societies and the auxiliaries. I, personally, feel that such auxiliaries are capable of doing much good for organized medicine. They have been a great help to us in our work this year. I find that organized medicine is much more firmly established than ever before, in our state, and this amalgamation has brought forth so much good. The women have helped us in so many different ways, and if the auxiliary did nothing more than to bring together in most friendly contact the different doctors in the county societies it would have served a function worth while in our efforts at organization.

The matter of postgraduate instruction of the general practitioner throughout our state is a big problem. I think the editors of our journals have within their pages the means of bringing about this instruction of our men. During this year I have tried to interrogate the different officers of the county societies on this matter of postgraduate instruction, to find out whether it was the desire of the different component societies to have postgraduate instruction. The manner in which this can be brought forward is a problem that has been troubling the brightest minds in the profession for a number of years but I do think that the state medical journal can be a big factor in producing instruction that will be helpful to the general practitioner. The matter of postgraduate instruction should be given an important place in the state journal and we hope in New Jersey to inaugurate in the 2 winter months of February and March of 1930, a system of postgraduate instruction that can be helped a great deal by Dr. Reik and his journal. The exact manner and plan will be published in our journal in due season, but the point I am trying to bring out is that we are going to depend on the Journal to disseminate this course of instruction to the profession and I have this year urged the necessity of reading closely the material that is put into the journal by the editor.

I would like to call the attention of Dr. Sharpless to the first article in our May Journal, "Physicians of Colonial Days in Burlington County", showing you that Dr. Reik has already seen the handwriting on the wall in the matter to which you referred regarding medical history.

Dr. Walter F. Donaldson (Pittsburgh): I took the liberty as one of the representatives of the conference who has the honor and pleasure of being your host today to suggest that the discussion of this paper by an editor be opened by a secretary, because I knew the editors would see to it that their point of view would be taken care of. The opportunity was first given to Dr. Dougherty and as he was unable to attend it was given to Dr. Morrison of the New Jersey Society. You may know that when I did that I look upon the secretary, in the office that he occupies, not as an individual but as an important factor in achievement of the ideal state medical journal. And, of course, that responsibility devolves upon him because he is the year-round representative of the entire membership of the state medical society and, after all, the state journal is the official organ representing those thousands of members. Now, in Pennsylvania we are fortunate in achieving as nearly as we do the ideal journal largely because of our selection of Dr. Hammond as editor. He is full of ability, but above all things he recognizes the value of calling to his assistance those who show aptitude in any line of work, and he recognizes the great value of frequent association with all phases of the practice of medicine. I have never yet attended a conference of the secretaries of medical societies, whether county or state, or a conference of the editors, whether they be those interested in medical education or allied subjects, that Dr. Hammond was not there with his little notebook, and our journal within a very few weeks became the beneficiary of the information and the ideas that Dr. Hammond has gained during such discussion.

Furthermore, Dr. Hammond is not only welcome but he is expected to attend all meetings of our state medical society committees and commissions. As you may know, he has been a member for the last 10 years of our Board of Trustees, and I am sure that the successful editor of any state medical journal must be close to all that is going on in the state society. He cannot represent that which is best for his thousands of members if he is not on the inside of all such discussions, and I rather think that the failure of some editors to represent what might be known as the combined wishes of the membership is due to the fact that they are entirely on the outside of organization matters and are interested only in scientific articles, literary style, and possibly in advertising.

This matter of advertising comes constantly before us and I believe that Dr. Hammond is fortunate in being the editor of a journal under a committee of the Board of Trustees that does not stress advertising income. There never was a Board of Trustees of any organization that was not interested in income but Dr. Hammond's hands are not tied in that direction. Nor do I believe any state medical society should burden those responsible for the publication of its journal

with the idea that sufficient money must be collected from advertising sources to support the publication of the journal. If necessary, the number of issues, or the size of the issue, should be cut to a plan that will permit publication of the ideal journal without expecting income from sources that do not express the highest ideals of a majority of the members of that society, not only in all forms of medical ethics but in advertising ethics.

So, I would say that the editor of the ideal journal should always keep in mind that his journal is the official organ of the state society, made up in most instances of thousands of members. His journal should therefore be replete with the official transactions as given to him by the proper officers. In Pennsylvania, as long as I am Secretary of the state society, I shall insist that our "Transactions" be not edited except from a literary point of style after they are turned over to the Publication Committee by the proper authorities of the state society, because the journals are after all the archives of our organization and I believe that the secretary and other officers are the best judges of the things that should be published so that they may be always on hand for future reference.

By way of encouraging our members to attend the annual meeting and by way of encouraging them in the belief that the journal is their journal I have insisted that we continue the practice that was probably effective in the days when the journal had not so much material, of giving credit to our members for attendance at the annual session. Their names and addresses appear as registered in the sections in which they are particularly interested. I like to believe that that not only gives each member of the society a proprietary interest in the journal, but also encourages his attendance at future meetings.

Our editor has always given us free access to the columns of the journal. In the Secretary's department we have continued the practice of publishing each month the actual facts regarding every member's change in memership in his county society, whether it be by removal, transfer, resignation or death. It is a great comfort to the historian to be able to refer to the published "Transactions", as they are bound way back through the 77 years of the history of our society, and be able to find this accurate record. It does not take up a great deal of room. You will find the information that I refer to in the Pennsylvania Journal and I think it should be kept up. I believe that the ideal state journal should be published with the idea in mind that it is the only journal received by the average member of the society. Do not take it for granted that he is receiving and reading scores of other journals.

Dr. Simonton: Gentlemen, we invited the Business Manager of the Pennsylvania Medical Journal to join us in this conference, and I shall now ask Miss Blair to take part in the discussion.

Mary S. Blair (Harrisburgh, Pa.): One subject omitted from the paper was that of special numbers. Probably every journal issues an occasional special number, and if they are not overdone, they are a useful means of calling attention to any event of particular importance. The Pennsylvania Medical Journal issues a "Convention Number" every September for the purpose of stimulating attendance at our annual sessions and also to preserve a complete account of the occasion for its historic interest. At the time of our Diamond Jubilee, in 1925, a very special number celebrated this anniversary. It contained pictures of nearly all the presidents for the 75 years of the society's existence, of the officers then administering the affairs of the organization, and of various places connected with this celebration. Secretary Donaldson contributed a history of the society, and other special features made this number of unusual interest. Wisconsin publishes an annual "lay number" which is distributed to important nonmedical folk throughout the state, and which is considered a valuable contribution to lay education in that commonwealth. Doubtless the ideal state medical journal would follow some such procedure.

In the preparation of our annual convention number, we find it an advantage to have the management of the session centered in the journal office, as this facilitates preparation of the special "copy"—which is no light task under the best of conditions, that for 1928 requiring a full week of the business manager's spare time. The collaboration of the local publicity chairman and of the state society secretary, as well as members of the program committee and also the woman's auxiliary, is always enlisted, and is necessary to best results. A further benefit derived from the combination of journal and session management is found in the joint sale of advertising and exhibit space.

The opinion has been expressed by some of the speakers that it is the chief function of the state medical journal to act as an official organ of the association and that the publication of scientific contributions is of secondary importance. I have a broader conception of its function than that. It seems to me that the ideal journal should reflect all the interests of the profession within its state and keep its readers in touch, as well, with the more important phases of practice outside its own territory, for many of them receive very few other journals.

Within the confines of Pennsylvania we have 6 medical colleges, all of which are doing important research work. At the present time few of the more important reports on this work are published in the Pennsylvania Medical Journal. I believe it a mistake to let this type of contribution escape to other, often commercial, publications. They should be published at least in abstract in the journal of the state in which they originate. Surely the ideal state medical journal would recognize and assume its responsibility for recording contributions of the members of its own state society to the advancement of medical science, as well as the purely organizational and economic matters to which an official organ, in the narrow sense of the term, would devote its space.

The matter of securing such papers is one which the editor alone can scarcely be expected to handle adequately. Through the various officers of the society, however, contact is secured with most of the medical schools, and in his ex-officio capacity every officer should be alert to suggest to both authors and editor the advisability of publication in the state journal of such worth while material as comes to his attention.

Several of the speakers have mentioned their reluctance to discuss so technical a subject as the journal. Let me assure them that their point of view, as critical readers of the journal, is most helpful to those of us who are perhaps too close to the job to have a proper perspective. Suggestions and constructive criticism are always welcome, and it is one of the problems of the editorial staff to learn the reaction of readers to the various

presentations contained within their journal. Readers seem to be reluctant to express themselves—which leads to the suspicion that they are indifferent. We in Pennsylvania have worked out a system which may be suggestive to other state journals in securing at least official readers. We send to our officers and councilors monthly a short letter calling attention to special features of the current issue, in the hope that they will pass the suggestion on to those with whom they come in contact, and thus produce a widening circle of influence.

We regret exceedingly that the New York editorial staff is not represented at this meeting, for we are optimistic enough to believe that a free and open discussion of our mutual advertising problems might eventually be productive of a better understanding which would lead to reëstablishment of their relations with the Coöperative Medical Advertising Bureau. From the fact that the profits of the Bureau are divided among the participating journals, we assume that the Bureau is owned by these journals, and that the eventual if not the immediate control is vested in the owners of the journals. In cases of disagreement between a journal and the immediate management of the Bureau, therefore, it would appear that the complaint should be laid before the other coöperating publications for adjustment. It is a matter which concerns each and every member of the Bureau, for its efficiency cannot but be impaired when any state drops out of the organization.

Dr. Vander Veer's suggestion of a loose-leaf journal is most interesting. So far, none of the state journals has tried the experiment, but it is surely worth considering.

The method formerly used by California and Western Medicine, of publishing at the head of each scientific article a short digest of its contents, has much to commend it. Doubtless the ideal journal would adopt it. The only drawback is that the average journal staff has scarcely the time to prepare these digests.

Some one has suggested the addition to the journal activities of syndicated articles for lay consumption, saying that the sale of these articles is a fruitful source of income to the organization. It has long been our hope to add some such activity to those of our headquarter's office. We are convinced that this type of educational work is only in its infancy and that there is a fertile field here for development. In Pennsylvania, unfortunately, such a task could not now be undertaken without enlarging the staff of full-time employees—which may indeed come to pass before present indications would lead one to expect. Surely we cannot long delay our answer to the call of the people for more authentic information on health matters. If such an undertaking could be made to finance itself, the work waits only for the worker.

Dr. Reik has suggested that he hesitates to "preach progress and improvement and righteousness without ceasing" for fear of becoming tiresome. From somewhere the statement recently has reached my eye that all good writers are preachers whether they will or no. He has also questioned the value of standardization. Variety is the spice of life in state journals as in other activities. Yet, there must be a standard of excellence—of ideals—from which none of us should deviate. And within each journal, there must, of course, be a standard of style and of presentation which blends the diverse elements of which the journal is formed into a harmonious and unified whole.

The ideal state journal is certainly not a commercial proposition. The state society should view it as an educational investment, and as such most societies doubtless are willing to spend upon it funds in excess of the income received. Nevertheless, I am convinced that there should be a complete accounting system which will show whether or not the journal is a financial asset or liability, and that a certain balance between the debit and credit sides of the ledger should be maintained. Good business management demands this, and there is no doubt that the ideal state medical journal would be assured of good business management.

Cordial coöperation between the journal staff and the official representatives of the organization is imperative for the production of a satisfactory journal and the efficient conduct of the varied work of the association. Therefore, we venture to suggest that not only the editor but also the executive manager, who is charged with carrying out so many of the most important policies of the society, should be in close touch with all the activities of the organization.

In the office of the Pennsylvania Medical Journal we have worked out a new and very satisfactory technic for estimating the size of cuts of illustrations. If any of the editors of other state journals are interested, we shall be glad to supply them with a description of the method.

In closing, we should like to express our appreciation of Dr. Heckel's remarks. Editors are both born *and* made. Without an inborn aptitude for literary work, the editor has an up-hill job; and without knowledge of the involved technic of editorial work, he may expect a flock of problems to which the better-trained editor is practically immune. It is well worth the medical editor's while to prepare himself by technical study for the work of editing the ideal state medical journal.

Dr. Henry O. Reik (Atlantic City): I want to ask Dr. Hammond a question, and I also want to speak of one point that Dr. Vander Veer mentioned, that of making a digest of the original articles and publishing them. I think if that is left to editorial policy it would raise the question whether it amounted to censorship, because no matter who the editor might be it would be a pretty hard matter for him to abstract articles without giving his own personal slant and it would raise the question at once whether or not that did not amount to censoring the articles offered for publication in the journal.

Another point that Dr. Vander Veer raised was with reference to articles published by Senator Copeland and others in the newspapers. I think it is highly desirable that the medical profession should take an interest in supplying the public, through the newspapers, with discussions on important medical topics. We have tried to meet the situation in New Jersey in this way: We have been broadcasting from radio station WPG every Friday night, and at the same time those articles were being prepared for the radio, mimeographed copies were disseminated to the papers, with a release date, so that the newspapers having them on hand could use them coincidently with the broadcasting. There were 20 of those topics put out this winter on such subjects as diphtheria, colds in the head, prevention of the spread of influenza, the cancer problem, keeping the teeth clean, heart disease, and, is tuberculosis curable.

Dr. Vander Veer: Will Dr. Reik send me a file

of those articles that have been published if he has a set on file?

Dr. Reik: I think most of them are on file and can be copied for you. Miss Blair raised a very important point, that of publishing at the head of each article a brief abstract of what the paper contains. California had that plan in force for several years, through the Editor, Dr. Musgrove, and apparently it worked very successfully but for some reason or other it has been dropped since his death.

I wanted to say to Dr. Donaldson that we publish in New Jersey the minutes of the House of Delegates, and all business transactions, practically *verbatim* as taken by the stenographer, feeling that it is important these things should go on record, making only such editorial changes as are necessary from a literary standpoint.

The question I wanted to ask Dr. Hammond was concerning the announcement at the head of original papers, whether it is desirable to use at the top of the paper a statement as to when and where this paper was read? The papers that come to us from the state society are usually so marked but the papers that come through the county societies I have not generally treated in that way. I have done this as a matter of diplomacy for sometimes it was desirable to state it and at other times undesirable to do so. We might have in hand a paper that was read at an October meeting, and at the same time papers that were read several months before in other counties and it would be desirable to give precedence to the latest received paper; so, whenever possible I have left out the information as to where and when the paper was read.

In the matter of bibliography, we have felt that 9 times out of 10 it was not much good. We know that only rarely is it read by the members of the society, and often not even by the author of the paper. If it is a matter of short list of references we use it, but if it contains a long list of references we cut it out and advise the author that we haven't room for it but will add it to any reprints he may order if he so wishes. I would like to know what Dr. Hammond thinks about putting this information at the head of the paper, regarding the time and place of reading?

Dr. Frank C. Hammond (Philadelphia): I feel quite sure that the transactions of the society would be of more or less interest to all of the journals. The question regarding whom we serve is an intensely interesting problem. I think we serve primarily the membership of the state society. That may be divided into the general practitioners of medicine and the specialists. Primarily both of them have certain common interests. Everything that pertains to organized medicine should interest all of them. When it comes to scientific articles, then there is a difference of opinion, the specialists being interested in certain things in which the general practitioner is not especially interested, although the man in general practice is to a certain extent interested in all specialties. We took a great deal of interest a few years ago in sending to our members all over the state a questionnaire as to what part of the journal was of the greatest interest to them. We had an editorial at that time covering just that feature. The member as a rule simply thumbs through his journal to a point that he is interested in. Those interested in scientific medicine will read those articles and no others, some will read the editorials, and most of the general practitioners will turn to the news items. We find now that the news items are intensely read, practically eaten up by the members of the woman's auxiliary, and this gives them something to discuss with their husbands. There are other men who pay absolutely no attention to the reading material of the journal but are interested in the advertisements, those men who rarely attend the society meetings, who never read a text-book, but who sit and listen with the greatest eagerness to the man who comes in with drugs from time to time, men who are not willing to sit down and write out a prescription and consequently are interested in the advertising portion of the journal. It is of great interest to note what part of the journal interests the different men. I believe Dr. Sharpless said he read the journal from cover to cover. With the exception of those who work in the journal office, we believe that Dr. Sharpless is the only man who does read it through and it is a pleasure to meet him.

As to the question of book reviews, we found that 2 out of 626 read the book reviews, the rest never took any interest in them. The book agent may sell an author's book but they are not bought through book reviews. You may find once in a while a man who is interested in books who will be guided by the review and who will buy the book and read it but the majority have no interest in reviews.

The question of newspaper advertisements. We had an article in the journal about a year ago suggesting that something be done along the line of trying to eliminate or reduce to a minimum the question of advertising in the newspapers. We suggested that the responsibility be put up to the newspapers. With the state society back of you and the A. M. A. if you need it, it was thought the county newspapers could be cleaned up.

Where and when papers are read: We get papers occasionally where 2 months have elapsed since they were read. We adopt it as an unwritten rule that it should not be accepted 2 months after it was read. We feel that it has probably been huckstered all over the United States. We can only accept a limited number of contributions each year and that is one way we eliminate them. Occasionally we ignore the fact when and where read and publish as it is. The Publication Committee comes in for its share of responsibility, but we have not been able to consider publication of papers for several months because the files are filled. Some of the members are not willing to accept that explanation but it is a true reason and it is often a year before some of the papers accepted can be published.

Some of the county auxiliaries have the slogan "Take your husband to wherever the state society is to be held". I find in Philadelphia that because the wives are going to the Erie meeting the husbands are going along; men who have never attended an annual session of the state society. The Woman's Auxiliary has done that much for us and it shows what a healthy condition the auxiliary is in.

Dr. Reik: The next Tristate Conference will be due to be held in New Jersey in the autumn. We have usually held it early in November, and of course the New Jersey State Medical Society officers will be glad to extend you the usual invitation to meet there. No specific topic has been selected for discussion at that time. We would be very glad to know whether you would like now to suggest a topic for discussion. The only ones on my list which have been suggested in times past and not yet acted upon are these: Dr. Trick suggested that we devote a session to "consideration of undergraduate medical education". We

have at some of our previous meetings discussed the question of graduate and postgraduate work but not the undergraduate work. Dr. Vander Veer made the suggestion that "hospital standardization and the relationship of the staff and the county society members to the hospital" be a topic for consideration. We would welcome any other suggestions, of course. The decision is usually left to the President of the State Society under whose auspices we are meeting, unless the conference directs that a specific topic be discussed. I wish to say here that the topic that Dr. Hammond talked upon today was selected more than a year ago, before the discussion at Chicago, and not as a result of that discussion.

We invite you to come to New Jersey for the autumn conference and would like to know whether there is any special topic you would like to have on the program.

Dr. Donaldson: I would suggest that we leave the matter to the President of the New Jersey Medical Society and Dr. Reik, the Executive Secretary.

Upon motion it was decided that this should be done.

County Society Reports

ATLANTIC COUNTY

General Staff of Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The General Staff of the Atlantic City Hospital convened in the auditorium July 26, 1929, for its stated monthly meeting. The scientific program was presented by Dr. Samuel Barbash, Chief of Medical Service, and Dr. Sydney Rosenblatt, assistant.

Dr. Rosenblatt gave a statistical survey of cases admitted, with a classification as to diagnosis. Total number of patients was 169; autopsies 20. Three deaths occurred within a few hours after admission, 5 within 24 hours, and 6 within 48 hours.

Dr. Barbash presented the following report: The plan adopted for making physical examinations of the pupil nurses consisted in receiving at our office from 3 to 5 nurses each working day, and each was given a routine physical examination. This system we found to be far superior to the method previously employed, that of going to the hospital and trying to examine many within a few hours. We were able to devote more time to each one and feel that the examinations were more accurate. In all, 65 nurses were examined. Ear, nose and throat examinations were made by Dr. Sinkinson, and eye examinations by Dr. Pilkington. The report is as follows:

Abnormal conditions found not including minor ailments.—Anemia 23, pus in urine 8, enlarged thyroid 4, leukorrhea 3, amenorrhea 2, hypertension 2, tuberculosis of lung (healed) 2. *Cardiac cases.*—Systolic murmur 6, arythmia 1, tachycardia 2, hypertrophy 2, regurgitation 2, mitral insufficiency 1.

Early in the year, at a meeting of the Medical Department, Dr. Scanlan suggested that the chief in charge of the wards should not take care of the nurses at the same time. This is an excellent suggestion, and we hope it will be carried out. The care of the nurses has become a service in itself.

We were fortunate enough, working with Dr. Sinkinson, Dr. Wescott and others, to bring to a happy conclusion an illness in one of the nurses which terminated in a lateral sinus thrombosis. Operation was successful and the nurse is now on duty.

Our contacts with other departments have been closer. We were called in consultation 26 times, while we requested consultations 14 times. Our physiotherapeutic department is growing. Miss Morgan, the technician-nurse in charge, reports more doctors using these modalities and with greater frequency. From July 26, 1928, to May 22, 1929, the total number of patients treated by diathermy was 135; total number of treatments given, 1737.

The following cases were selected by Dr. Barbash as the most interesting to report:

(1) Man admitted to hospital April 25, 1929. Chief complaints, hoarseness for the past year, difficulty in speech, dyspnea, weakness, cough and pain in chest. About a year ago the patient awoke from sleep unable to talk. In about 10 days speech returned, but not clear; no pain, but extreme difficulty in swallowing; no nausea. Liquids seemed to lie in his throat until the patient belched after which he could swallow.

Several years ago the patient had had what he called a "swelling of the heart and left side of the chest", but this gradually diminished. Since then he has had a continued cough with pain in the chest and a small amount of expectoration. Family and medical histories negative; no illness until the present one began.

Physical examination showed a swelling in the lower part of the neck with bulging of the right supraclavicular space; marked prominence of right clavicle and upper right thoracic region. Patient had the peculiar brassy cough so characteristic when an aneurysm of the aorta makes pressure on the trachea. There was noticeable pulsation above the sternum and right clavicle; also an aneurysmal bruit was present.

This case I exhibited before the Staff in April of this year. Those of you who saw the man will recall that he was in considerable distress, with marked dyspnea, a brassy cough and a mucoid expectoration. When his head was turned to the left he was able to talk in practically normal tone. As his head was slowly rotated to the right his voice became huskier and huskier until, when his head was turned completely to the right, he could talk only in a whisper.

When his head was turned to the left, the clavicle and the aneurysm beneath it made no pressure on the recurrent laryngeal nerve on the affected side. As his head was gradually turned to the right these structures made more and more pressure on the recurrent laryngeal nerve until there was almost complete aphonia.

His blood count on admission showed erythrocytes 4,350,000, leukocytes 13,850, hemoglobin 65%, color index 0.7+, polys. 73%, s. lymphs. 27%.

Wassermann was 4 4 4 0 0; Kahn negative. Electrocardiograms by Dr. Marvel showed normal tracing. There was a difference in the blood pressure of the two arms of 15-20 points systolic. Taken at 3 day intervals the readings are as follows: Left arm 165/100, right arm 150/100; left arm 130/85, right arm 110/75; left arm 100/70, right arm not taken.

X-ray report, April 27: "Oblique projection shows some symmetrical widening of the ascending aorta. The aneurysm seems to involve chiefly the horizontal portion of the arch and probably some of the descending portion."

Report by Dr. Charlton of his examination, April 27: "Larynx shows paralysis of the left vocal cord, but when the head is turned to the extreme left there is slight amount of motion. Turning the head to the complete right aggravates the condition, making it difficult for the patient to talk and raise mucus."

This man was in the ward at the termination of our service, and was transferred May 8 to the County Almshouse. On his chart I find a notation, dated June 5, saying he died at the Almshouse that day. Autopsy revealed a normal ascending aorta with a large aneurysm of the transverse and descending aorta. The aneurysmal sac was adherent to all surrounding structures and could not be removed. There was necrosis with liquefaction of the apex of the left lung.

(2) Man, 40 years of age, admitted to the ward February 25. Until 3 days before admission had been perfectly well; family and medical histories of no consequence. February 22, he had started to vomit, but had no pain. Vomitus was yellow and contained food from the meal last eaten. This symptom continued at intervals for 24 hours, when patient began to hiccough, still vomiting occasionally. The continuous hiccoughing weakened him considerably.

We were unable to find anything to account for the hiccoughing and vomiting except possibly the drinking of 3 glasses of home-made wine 5 days before onset of illness. Other individuals partaking of the same were not affected, however. Various remedies used at home and in the hospital were of no avail. Gastric lavage gave almost immediate relief. A quart or more of brown fluid, extremely sour, was removed from the stomach.

This case, briefly outlined, brings to mind the fact that hiccough is quite often caused mechanically by an accumulation of fluid in the stomach. It may also be the result of toxic absorption of bile from the gall-bladder and duodenum. A patient seen in private practice about the same time had hiccoughed persistently for 7 days. He was treated during that time by another physician unsuccessfully. Gastric lavage partially stopped the hiccoughing for several hours. Duodenal drainage was instituted and marked relief obtained. The second duodenal drainage was completely successful. A third was given as a matter of precaution.

(3) A third case of hiccough, occurring in the ward of the hospital, was in a colored man who had bronchopneumonia with complicating cholangitis. The common bile-duct was closed, due to swelling, and until the swelling subsided neither gastric lavage nor duodenal drainage was beneficial, except for a very short time. In other words, until the common bile-duct became patulous and the proper flow of bile established from liver and gall-bladder, we were unable to check the hiccough, apparently toxic in origin and caused by absorption from the gall-bladder and liver. It is well to bear in mind that, except in cases of hiccough due to nervous origin, relief may be obtained by gastric lavage and duodenal drainage.

The occurrence of asthma in patients in both private and hospital practice is a common one. When we refer to asthma, we usually mean bronchial asthma, which has many causes. It may be due to plant pollen, bacterial infection of the sinuses and nasopharynx, nasal polyp, or occasionally food. Treatment consists in finding and removing the cause, wherever possible, and treatment of the acute symptoms with adrenalin, ephedrin, or morphin and atropin. Sedative expectorants may be given.

In a number of cases the patient manifests asthmatic symptoms when there is a poor myocardium with decompensation. Adrenalin has very little effect in these cases. Morphin and atropin are beneficial. In the long run, rest, and strengthening the heart with digitalis, gives the greatest and most lasting benefit.

In other cases on record the appendix and gall-bladder were proved to be the underlying causes of asthmatic attacks. These have been cured by proper surgical intervention.

Occasionally we see a case of acute nephritis in which the patient manifests asthmatic symptoms. This condition has been termed "renal asthma". It is really nephritis with asthmatic manifestations. In my experience it is rare, and I cite the following case as an illustration:

(4) A woman, age 30 years, was admitted to the ward March 23, 1929. March 16, the patient was well, and out on the boardwalk; next day she developed headache, epistaxis and dyspnea. She became increasingly short of breath; no chills, nausea or vomiting. Her legs began to swell the day before admission. On admission she was extremely dyspneic and had to sit up all the time.

Family and medical histories were of no consequence; there was nothing in the myocardium to account for the dyspnea; cardiac examination revealed no murmurs or thrills; general physical examination was negative, with the exception of the chest.

Urine examination on admission: deep amber, turbid, strong odor, acid reaction, specific gravity 1031, 250 mgm., albumin, moderate amount of acetone, no diacetic acid, trace of indican. Microscopically there were numerous granular and red blood casts, numerous pus cells and red blood cells. March 26, urine showed specific gravity 1027, 600 mgm., albumin, microscopically numerous hyaline casts, numerous red blood cells and pus cells, moderate amount of amorphous urates and a moderate amount of bacteria. March 27, albumin dropped to 200 mgm., the casts had diminished to one hyaline per field; there were still numerous pus cells and red blood cells. March 29, 30, and April 1, the albumin dropped from 150 mgm. to 100, then to 90 mgm. April 2 and 5, there was no albumin. Microscopically, the casts and red blood cells gradually diminished until the urine was normal except for a large number of pus cells. As the albumin, casts and red blood cells diminished, the asthma diminished and the edema in the extremities decreased.

The first 4 days the temperature was of the remittent type, ranging from normal to 102° F. Temperature gradually decreased and after being normal for one week, patient was discharged. Treatment was symptomatic. It was necessary at times to give morphin and atropin. Alkaline diuretics were given, and until our diagnosis was established, cardiac support was given.

Blood pressure on admission was 182/100. April 12, three days before she was discharged, it was 140/85. This apparently was a true case

of "renal asthma", and I call your attention to it on account of its infrequency.

(5) Another patient I exhibited before the staff in April was a man who had extreme dizziness, nausea and vomiting, and diplopia. At the time I ascribed his dizziness to his double vision. This trouble was not due to diplopia, although he was more comfortable with one-eye vision. Dr. Sinkinson, on March 22, thought the patient had a labyrinthitis caused by some disturbance of the cochlea or semicircular canal.

Dr. Spiller, Professor of Neurology at the University of Pennsylvania, who happened to be down seeing another patient, was asked to see this man. His opinion was that it would not be fair to make a diagnosis without further study on his part, but he said that with diminution or absence of reflexes of the lower extremities it would not be wise to exclude syphilis, in spite of the negative spinal fluid and blood Wassermann tests.

The patient was left over for the succeeding service and died June 1. I was present at the autopsy. Before it was begun, Dr. Salasin stated definitely that in his opinion the man had a cerebellar tumor. This was verified by the autopsy.

At the April meeting I also exhibited a boy, aged 17, with mediastinal tumor, probably leukosarcoma. This boy's chest was filled with fluid at the time. There had been repeated tappings. He has gradually become worse and the final report on this patient will in all likelihood be made by the present service.

(6) A colored woman, age 21, was admitted to the ward of the hospital February 19, 1929. One week before admission she developed a cold in the head and coryza; 4 days later her throat became sore, and she began coughing. The day before admission she began to feel feverish, had a dull pain in the back over the kidneys and pains in both legs and arms.

Upon admission she had a sore throat, fever, and rash over the entire body. On account of the sore throat and rash, we thought she had secondary syphilis. This was disproved by Wassermann. Temperature was 103°, dropped to normal the next day, then began to rise again. From then until the eighth week of illness, temperature was of the remittent, septic type, at times as high as 104°; after the eighth week it gradually returned to normal.

Upon admission, leukocyte count was 16,500, with 81% polys. Throughout the illness this remained practically the same, with a few thousand more or less at each count, and, April 31, returned to normal, where it remained.

Culture from patient's throat showed a large number of pneumococci and streptococci. March 3, she began to complain of substernal pain. March 7, arthritic pains developed and a definite endocardial murmur. The evidence pointed toward a bacterial streptococcic endocarditis. March 12, both lungs showed consolidation at the base, with râles throughout the chest higher up. March 14, blood culture was negative, and 3 succeeding cultures within a week were also negative. March 21, an anaërobic streptococci was grown from the blood. March 22, Dr. Wescott reported x-ray showed what appeared to be a mediastinal mass. Dr. Fish saw this patient with us, and by auscultatory percussion outlined the mass, which seemed to almost fill the left chest. March 24, there was an area of flatness, with distant breath sounds, on the left side extending high up into the chest. We were of the opinion that the patient might have an empyema. A needle was insterted at the posterior axillary line on the left side, at the seventh interspace. The large syringe used was filled with blood by pressure from within the chest and, with the exception of a few drops of bright blood, no fluid was obtained. March 27, the same day, Dr. Wescott again x-rayed the chest and reported the shadow unchanged; that it might be due to cardiac dilation, with tricuspid insufficiency as a probable diagnosis. Cardiac stimulation was pushed actively and April 4, x-ray examination showed that the heart had returned to normal size.

It is evident that in aspirating the chest at the seventh interspace posteriorly, on account of the terrific dilation of the heart, the needle was inserted into one of the heart chambers and the pressure within the heart caused the syringe to fill with blood. The patient apparently suffered no discomfort from the cardiopuncture, and finally recovered completely. Treatment was symptomatic. In addition to internal medicine small doses of mercurochrome were given intravenously for the blood stream infection.

The unusual features in this case are:

(a) A streptococcic infection which first involved the throat, then the blood stream, with an accompanying bacterial endocarditis and toxic joint pains, a double broncopneumonia, and final recovery.

(b) Accidental cardiopuncture without apparent ill effects.

This case was also exhibited at the staff meeting in April.

A general discussion followed by the staff members, after which the meeting adjourned. The Major Staff convened shortly afterwards.

HUNTERDON COUNTY

L. T. Salmon, M.D., Reporter

The summer meeting of the Hunterdon County Medical Society was held July 23, at 1 p. m., at the Glen Gardner Sanatorium, at the invitation of Dr. S. B. English, at which time Dr. English had served his usual splendid luncheon.

This meeting was held in conjunction with the Woman's Auxiliary, both organizations repairing to the chapel of the institution for the session. Members present were: Drs. Fulper, Gramsch, Apgar, Coleman, English, Lane, Salmon and Topkins. As visitors, Dr. Andrew F. McBride, the new President of the New Jersey Medical Society; Dr. J. B. Morrison, State Secretary; Dr. A. F. Myers, Secretary of Bucks County Medical Society; and Mr. MacDonald, who represented the State Hygiene Department.

After reading of the minutes, Dr. English reported the favorable action of the Board of Trustees of the Sanatorium, regarding the suggestion of the society that a memorial be placed in the institution to Dr. O. H. Sproul, a former Trustee of the Sanatorium and member of this society.

A letter was read from the county nurse, requesting coöperation by the society with the Parent-Teacher Association in the work of securing preschool examinations of children entering public schools. A motion was passed which laid this communication on the table until the next regular meeting, at which time it was

agreed to act upon it, the sense of the meeting being favorable to the suggstion.

Following the suggestion of Dr. Morrison, made in a recent letter, the President appointed a Committee for the Revision of the By-Laws and Regulations, consisting of Drs. Salmon, Closson and Tompkins.

Mrs. James Hunter, Jr., President of the State Woman's Auxiliary, then addressed the meeting regarding the practical aid offered by that organization and suggested that such work as that referred to in the letter just read from the county nurse, might easily be assumed, at the request of the physicians, by the Woman's Auxiliary. She asked for coöperation.

Dr. McBride gave a succinct talk in which he dwelt with emphasis upon several pressing medical needs: the diphtheria campaign, auxiliary coöperatoin and coördination, inordinate fees, total county membership of medical men eligible and, lastly, the importance of the Welfare Committee's work. He was enthusiastically applauded and left a very happy impression. He tells a story very well.

Mr. MacDonald acquitted himself thoroughly well in his talk upon the diphtheria propaganda, going into the history, difficulties and accomplishment and definite records of institutional testing of the plan in the early stages of the investigation.

Dr. Morrison gave an extended talk, dwelling upon many interesting topics such as changes in the By-Laws, the value of Mrs. Taneyhill's services, diphtheria propaganda, postgraduate courses at Rutgers, preventive medicine, and the necessity of the increase in the State Society dues. Some discussion arose concerning the best method of approach to be used in getting the public interested in toxin-antitoxin routine administration.

Miss Apgar extended the thanks of the auxiliary for the entertainment of the day and Dr. English received a rising vote of thanks for his hospitality.

The society then adjourned and was met at the door by a photographer who took a group picture including both societies.

MORRIS COUNTY

Annual Meeting of the Surgeons of the Delaware, Lackawanna and Western and the Jersey Central Railroad Companies

Marcus A. Curry, M.D., Reporter

The Annual Meeting of the Surgeons of the Delaware, Lackawanna and Western Railroad Company and the Jersey Central Railroad Company was held at the New Jersey State Hospital at Greystone Park, June 28, 1929, through the courtesy of the Board of Managers and Superintendent Curry, of the institution. The organization is composed of surgeons of New York, New Jersey and Pennsylvania.

The presiding officer was Dr. A. F. Merrell, of Hallstead, Pennsylvania. More than 100 interested members and guests were present and enjoyed the program, which commenced at 10 a. m. and ran through the day.

The scientific chapter embraced a paper on "Injuries to the Shoulder Joint", with lantern demonstrations, by Dr. H. H. M. Lyle, of New York City, surgeon at St. Luke's Hospital. Discussion of this paper was led by Dr. J. M. Wainwright, of Scranton, Pennsylvania, Chief Surgeon of the Lackawanna Railroad. A paper on "The Controllable Features of Spinocian" was read, with lantern illuminations, by Dr. George F. Pitkin, of Bergenfield, New Jersey, Chief Surgeon of Holy Name Hospital, at Teaneck, and also consulting surgeon of the Greystone Park Hospital which was probably the first state hospital to adopt this form of anestheisa and where it has been successfully used for some time. Discussion of this paper was led by Dr. Laurence M. Collins, of the Greystone Park Hospital Staff. A paper on "Post-Traumatic Psychosis" was read by Dr. Laurence M. Collins, who also presented patients with this type of psychosis, and gave his audience full opportunity for questioning. Discussion was opened by Dr. Arthur G. Lane, clinical director of the Greystone Park Hospital. (Papers and pictures will be published in a later issue of the Journal.)

Shortly after 2 o'clock, adjournment was taken to the employees' cafeteria for luncheon and this was followed by inspection of the hospital plant, the therapeutic equipment and methods.

The address of welcome was made by Superintendent Curry, and warmly seconded by Commissioner of Institutions and Agencies, William J. Ellis. Dr. Andrew F. McBride, President of the Medical Society of New Jersey, also addressed the assemblage in his impressive and refreshing manner; and among others giving voeal expression to their views was H. A. Rowe, Claims Attorney of the Lackawanna Railroad.

The addresses were all in agreement in regard to the very marked change from the old type of custodial institution to a hospital where the patient is carefully and completely examined and treated not only for mental affliction but for physical disabilities. It was also the consensus of opinion that the attitude of the public has changed; that family and friends are now as willing to send a patient to a state hospital as to a general hospital.

Comments and communications all combined in expressing great delight with the meeting and unqualified approval of the institution and its aims.

A HEALING BALM

What of imagination? It can be
A welcome agent making sorrow sweet
And smoothing billows breaking on life's shore.
Imagination's touch is ever free,
And few with her for comfort can compete,
Or mental calm so tenderly restore.
And so the wise physician, you will find,
Heals not the body only, but the mind.

A cheery smile or glad suggestion brings
To many a patient restful happiness,
And aids the treatment like a power divine.
Let but the sufferer's soul unfold its wings,
And Hope, who loveth to relieve distress,
Will come with waving hands and eyes that shine.

—R. O., Buck's County Medical Monthly.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Andrew F. McBride.....Paterson
First Vice-President, George N. J. Sommer.....Trenton
Second Vice-President, John F. Hagerty.....Newark
Third Vice-President, Paul M. Mecray.....Camden
Corresponding Sec., William J. Carrington....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Lucius F. Donohoe, *Chairman*.....Bayonne
James Hunter, Jr., *Secretary*.....Westville
Norton L. Wilson.....Elizabeth
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Paul M. Mecray.....Camden
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires,	1932	.....George H. Lathrope, Newark
Second District	" "	1931	.....B. S. Pollak, Secaucus
Third District	" "	1930	.....Martin W. Reddan, Trenton
Fourth District	" "	1929	.....George T. Tracy, Beverly
Fifth District	" "	1933	.....J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

R. K. Hollinshed, *Chm.*	Term expires		1930
Lancelot Ely	"	"	1931
Henry C. Barkhorn	"	"	1932

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City	Term expires		1932
J. Finley Bell, Englewood	"	"	1932
Thomas B. Lee, Camden	"	"	1930
Henry Spence, Jersey City	"	"	1930
H. Garrett Miller, Millville	"	"	1931
Harvey S. Brown, Freehold	"	"	1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty	Term expires		1931
B. S. Pollak	"	"	1931
W. Blair Stewart	"	"	1930
E. R. Mulford	"	"	1931

Alternate Delegates

George H. Sensmith	Term expires		1931
Philip Marvel	"	"	1930
S. B. English	"	"	1930
C. B. Smith	"	"	1931

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark	Term expires		1930
Edward J. Ill, Newark	"	"	1931
J. Bennett Morrison, Newark			Ex-officio
Andrew F. McBride			Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*	Term expires		1933
Paul M. Mecray	"	"	1934
John Nevin	"	"	1931
B. S. Pollak	"	"	1930
H. Garrett Miller	"	"	1931
Thomas W. Harvey	"	"	1932
Elias J. Marsh, *Treasurer*			Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton	Term expires		1931
William G. Schauffler, Princeton	"	"	1932
William D. Olmstead, Atlantic City	"	"	1930
Andrew F. McBride, Paterson			Ex-officio
J. Bennett Morrison, Newark			Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Foxman.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield
Frank R. Haussling.....Newark

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
C. L. Ulmer.....Gibbstown
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
George F. Dandois.....Wildwood
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
George B. Emory.....Morristown
James S. Green.....Elizabeth
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
Frank G. McCormack.....Englewood
B. C. McMahon.....Morristown
James P. Morrill.....Paterson
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
C. H. Schlichter.....Elizabeth
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.

MOUNTAIN VALLEY WATER *from* HOT SPRINGS *Arkansas*

The Doctor's Preference for a Non-Irritating Diuretic

Mildly Alkaline -:- Natural -:- Pleasant Tasting

Mountain Valley can be consumed in quantity and relished. It is easily assimilated and a palatable agent for flushing all four of the emunctories.

Newark, N. J.
92 Central Ave.
MARket 8890

Mountain Valley Water Company
Distributing Branches in all Principal Cities

New York, N. Y.
142 E. 25th St.
GRAmercy 1666

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918

Vol. XXVI., No. 10. Orange, N. J., October, 1929 Subscription, $3.00 Per Year Single Copies, 30 Cents

CONTENTS

ORIGINAL ARTICLES— Page

Some Atypical Cases of Appendicitis—Dr. John B. Deaver 665

Surgical Records in Color Motion Photography—Dr. J. Eastman Sheehan 669

Mild Forms of Trichinosis—Dr. Lodovico Mancusi-Ungaro 671

Observations on 1500 Feeding Cases—Dr. John Howell West 673

ORIGINAL ARTICLES— Page

The Heart Muscle—Dr. F. P. McKinstry... 676

Manipulation of the Sound in the Male Urethra—Dr. George T. Spencer 678

Ocular Disturbances in Organic Nervous Disease—Dr. M. A. Burns 678

That Light Outdoor Job—Dr. B. M. Harman 684

EDITORIAL—

Selection of County Officers 687

Continued on page VI.

TWO MALTBIE ACHIEVEMENTS

which meet your therapeutic requirements!

CLINICAL experience during influenza epidemics demonstrated that Calcreose was of value in the treatment of pulmonary and intestinal complications.

The Tablets Calcreose 4 grs. contain 2 grs. of pure creosote combined with hydrated calcium oxide.

Each fluid ounce of Compound Syrup of Calcreose represents Calcreose Solution 160 minims (equivalent to 10 minims of pure creosote); Alcohol, 24 minims; Chloroform, approximately 3 minims; Wild Cherry Bark, 20 grains; Peppermint, Aromatics and Syrup q. s.

The MALTBIE Chemical Company, Newark, New Jersey.

MALTBIE Calcreose

THE BEST WAY To Feed A Baby

There are many methods of artificially feeding babies. Often the physician asks—What is the best way?

The Answer:

There are no standardized babies and therefore no standardized foods are suitable for all babies. The requirements of the individual baby must be considered.

This is why the formulas of Mead's Dextri-Maltose, cow's milk and water are most popular with a majority of physicians, because these formulas can be regulated to suit the requirements of the individual baby.

First Thought—Breast Milk.

Second Thought—Mead's Dextri-Maltose, Cow's Milk and Water.

Scientific literature and a supply of Dextri-Maltose for clinical observation will be furnished on request.

Mead Johnson & Company
Evansville, Indiana

Manufacturers of Infant Diet Materials Exclusively

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 10 ORANGE, N. J., OCTOBER, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

SOME ATYPICAL CASES OF APPENDICITIS*

John B. Deaver, M.D.,
Philadelphia, Pa.

In addressing the members of the Academy of Medicine of Northern New Jersey, composed largely of general practitioners, I thought I might venture to discuss one of the more common acute abdominal conditions. Foremost among these is appendicitis which, strange as it may seem, continues to carry a very high death toll. At first sight this is somewhat difficult to understand, especially in view of the extensive literature on, and widespread discussion of, the subject, but it is my conviction that many of the fatalities are related to diagnostic errors, and much of the confusion that prevails is due to the fact that all cases are not typical—at least this is the most generous way of looking at it.

Let us consider some of these atypical cases. It must be admitted, the first essential in making a correct diagnosis of any acute abdominal condition is knowing the topography of the organ or structure in the region involved. This is as essential as it is to go into the water to learn to swim. The topography of the appendix varies, depending upon its position and its length. In about 65% of cases the appendix lies lateral to or behind the cecum and ascending colon, and points upward; in about 25% it is either in the false or the true pelvis, and points downward; in about 10% it is below the apex of the cecum or along the mesial side of the ascending colon, beneath the terminal mesentery and ileum, pointing either downward or upward and to the left; or above the terminal ileum and mesentery, pointing upward and to the left.

When the appendix is unusually long and perforated, the condition is more complex. This can very materially confuse the situation and cloud the diagnosis, and at the same time it is a most important factor in the differential diagnosis and in recognizing the case as an atypical one. The most common atypical cases are: (1) Those in which an unusually long appendix holds a high position and is perforated near its tip; (2) those in which it is long and lies in the true pelvis; (3) those in which it is long and lies beneath the mesentery of the terminal 8 to 10 cm. of the ileum, is perforated near the tip and directed upward and to the left. I have seen many such cases and, furthermore, I have so often seen the diagnosis missed by very excellent diagnosticians as to warrant my stressing their importance. This is excusable because the surgeon of vast experience in this line of work should naturally be more alert in recognition of these anomalous cases. Why? Because he has learned his lesson by making autopsies in vivo. This knowledge cannot be gotten by the spoken or the written word but only by frequent excursions into the abdomen, the scalpel revealing the hidden secrets, disclosing the mysteries, and dispelling doubt, all of which the doctor cannot do.

The high-lying, acutely inflamed or per-

*Read before the Academy of Medicine of Northern New Jersey, Newark, N. J., April 23, 1929.

forated appendix may closely simulate other conditions, especially noncalculous inflammation of the gall-bladder. In the absence of history of a previous gall-bladder attack, or of a clear-cut history of the present attack, differential diagnosis is not only uncertain but impossible, especially during the first few hours of the attack, when muscular rigidity is pronounced. Muscular rigidity interferes with determination of the point of greater tenderness, the *sine qua non* of arriving at a definite conclusion. In the course of a few hours, however, if the patient is placed on anatomic and physiologic rest, morphin given to quiet pain, no food or medication by mouth, ice bags applied to the affected region, and proctoclysis instituted, the rigid muscular wall will have become sufficiently flexible to enable the examiner by careful, gentle palpation, to locate the most tender point. I regard palpation as of the greatest moment in solving an otherwise insoluble diagnostic riddle. To accomplish this, palpation must be made over the position of the fundus of the gall-bladder and over the line of the appendix from its origin. In the acute appendix the line of tenderness can in this manner be followed from its base to the point where it is most severe, but this does not apply to the same degree in the case of the acute gall-bladder.

Peritoneal irritation or inflammation of the serosa of the appendix and of the contiguous peritoneum will produce tenderness that extends over a greater area than that corresponding to the area of the appendix itself; therefore this tenderness may be thought to be caused by inflammation of an organ in close proximity to the inflamed appendix. This frequently occurs in the differential diagnosis of gall-bladder disease from a high-lying appendix inflammation, and all the more emphasizes the statement that he who examines well diagnoses well.

Where the diagnosis is not certain and operation is decided upon, the outcome in my experience is not likely to be the most satisfactory. The longer I practice surgery, the stronger is my conviction that, except in the emergency case where time is an element, in a hazy diagnosis it is better to go slow than risk precipitate action. Surgery is too full of responsibilities, trials, and occasional disappointments to be practiced light-heartedly. In passing, let me say that before any surgical operation is undertaken one should be sure that mechanical treatment is necessary rather than medical treatment. We must, however, realize that the safety of surgery is now so assured that it is daily employed not only to rescue a threatened life but to guarantee the sufferer against recurrent conditions that in time may destroy his future well-being, if not his life.

It is more important to operate early in acute appendicitis than in acute cholecystitis; in fact, in simple acute cholecystitis, the usual variety, it is best to postpone operation until the acute stage has subsided; while in the ultra-acute variety (which includes the phlegmonous, the perforative, and the gangrenous) operation cannot be made too early, but these conditions are comparatively rare. Appendiceal inflammation, therefore, remains the more important. Of the cholecystic inflammations, the acute perforative is the more likely to be missed on account of its simulating perforated peptic ulcer and acute pancreatitis.

The distinctive possibilities of high-lying acute appendix are much greater, other things being equal, than those of an acute cholecystitis. This, as a rule, is due to the greater virulence of appendicular peritonitis and its consequent toxemia compared with peritonitis of cholecystic origin. Appendicular peritonitis ranks with postpuerperal peritonitis in its high death rate, and this makes early diagnosis and early removal of the appendix most important, if life is to be conserved.

The peritonitis of acute cholecystitis is not only less lethal but less rebellious to treatment, in that the topography of the gall-bladder provides better protection against a spreading inflammation than does the appendix. I am so conscious of the gravity of acute appendicitis, that I regard operating in the presence of peritonitis one of the most responsible operations I perform. If this is true, is not the diagnosis of equal importance? Approaching a case of this kind makes one feel his limita-

tions, no matter how large his experience in appendiceal surgery.

A potent cause of confusion is differentiating between an ultra-acute inflammation of a high-lying appendix with abscess, acute pyelitis, acute hemotogenous infection of the kidney, and acute perinephric infection. In the presence of an appendiceal abscess, if the collection is well back in the loin space, it is safer to make the attack through the loin; however, too often one cannot be certain enough of this —especially if the collection is small—to select this route, so that an anterior approach made well out, is preferable. This gives the operator the best chance to protect the peritoneal cavity against contamination. I have seen a loin fecal fistula result as a sequel of spontaneous evacuation of a postcolic appendiceal abscess, the true origin of which had not been recognized.

The pathologic findings in the high-lying and posteriorily located appendix vary from a mild inflammation of the retrocolic fat and connective tissue, to infection of the perirenal fat and wall of the colon, the latter being the more likely where the abscess wall is partly formed by the colon. Under the latter circumstances, pressure of the pus against the colon produces pressure necrosis and ulcerative communication with the abscess cavity so that a fecal fistula results, as I have instanced. The abscess may spontaneously evacuate into the colon, which some surgeons regard as a fortunate termination, but to this I cannot subscribe. I believe the risk to the patient is greater than if nature had been assisted and the abscess evacuated by the surgeon; or, still better, if the appendix had been taken out before suppuration occurred. In a high-lying suppurative appendicitis it is not at all uncommon to find pus along the outer side of the colon (the external paracolic groove), between the diaphragm and the liver and beneath the liver; therefore at operation examination must be far reaching, otherwise drainage will not have been accomplished and a life is lost that otherwise could have been saved.

A confusing picture is where an appendix, perforated near its tip, results in limited infiltration of the fatty and true capsule of the kidney. I have seen this condition raise the question of acute hematogenous infection of the kidney, perinephric infection and pyelitis. Waiting for a definite diagnosis too often delays operation until the ravages of infection place the life of the patient in the balance by narrowing the margin of safety. Refined operative skill is a requisite in these circumstances, if the patient is to be given the best chance.

An appendix located in the pelvis, especially in the true pelvis, causes left-sided pain and bilateral lower abdominal rigidity, with irritability of the bladder due to irritation or inflammation of the bladder serosa. In the female, acute pelvic appendicitis, especially when perforated or when an abscess has formed, may and oftentimes does play havoc with the uterine appendages. This accounts for the fact that the appendix is responsible for sterility. In these days of birth control propaganda, it is well to bear in mind the rôle that an acute pelvic appendicitis can play in causing salpingitis and occlusion of the fallopian tubes. Evidently some gynecologists are not aware of this vicious relationship, otherwise, instead of using the Rubin test for sterility, they would be paying more attention to the danger of a flare-up of a chronic pelvic appendicitis with its disastrous possibilities. In the female, particularly the child or the young woman, acute pelvic appendicitis is more serious than in the male. The diseased appendix is often diagnosed as tuboovarian abscess. For example, I am often asked, when operating for appendicitis in the female, to examine the right ovary as this is the suspected cause of the condition. Pelvic appendiceal abscess in the female must expose the uterine appendages to the risk of infection, causing an entangled alliance that cannot safely be disentangled by delayed operation.

In differential diagnosis of these conditions, careful examination of a catheterized specimen of urine, a cystoscopic, vaginal, and rectal examination, palpation of the kidney, and the sedimentation test must be made if we are to be thorough in our search for the truth. If

the kidney is movable and tender, the degree of tenderness and its position are to be carefully determined; while if there is tenderness lower down and over the line of the ureter, we may be dealing with an ureteritis. Tenderness to superficial pressure will more likely be due to an inflamed appendix than to an inflamed ureter. In the acute appendix, on the other hand, owing to the presence of peritoneal irritation or actual peritonitis, tenderness will be more wide spread than in ureteritis. In acute hematogenous infection of the kidney, a comparatively rare affection, there are greater constitutional reaction, high temperature, rapid pulse, chills, and the patient looks and is sicker than in appendicitis. In inflammation of the perinephric tissue, the greatest amount of tenderness is in the costovertebral space; therefore much will depend on the palpatory findings.

In pelvic appendicitis, diagnosis is usually not difficult if the points I have called attention to are kept in mind and the findings of a painstaking physical examination, including rectal and vaginal, are correlated with the history. The earlier in the disease the patient is seen, before the presence of advanced or advancing peritonitis, the more satisfactory and the surer will be the diagnosis. In the male a common error is mistaking appendicitis for diverticulitis of the sigmoid. Ordinarily this should not occur if the history is carefully interpreted and the physical examination has been properly made. Here, again, palpation is of much moment. I cannot stress this point too much. X-ray and proctoscopic examination are only practicable in the chronic case. It may interest you to know I have seen spontaneous evacuation of a pelvic appendiceal abscess in the male take place through the bladder and the urethra. One of such cases had been diagnosed as prostatic abscess of gonorrheal origin. Operation, however, revealed the tip of the diseased appendix imbedded in the bladder wall. In another case, a cystoscopic examination located the site of an ulcerative communication with the intestinal tract. This patient passed gas through the urethra, and after eating tomatoes the urine was found to contain tomato seeds. I have also known a high-lying appendix abscess to be evacuated by the mouth, the pus finding its way through the diaphragm, the lung, a bronchus, the trachea, the larynx, and the mouth.

Where the acutely inflamed perforated or abscessed appendix lies beneath the terminal mesentery and ileum, pressure over the line of the appendix will elicit exquisite tenderness. This position, and that immediately above the terminal mesentery and ileum, pointing upward and to the left, are two of the most dangerous locations when perforations or suppuration has taken place and call for the greatest nicety of technic in removal. The nearer the appendiceal abscess, if above the mesentery, is to the median line, the greater the risk of operation; this being the so-called labyrinth of the intestines, the area surrounded by the greatest number of coils of small bowel. Where the appendix lies well down in the false pelvis or in the true pelvis, palpation is less certain because the appendix holds a much deeper position than ordinarily. This comprises one of the pitfalls in differential diagnosis; therefore, it must be borne in mind in making the examination and especially calls for digital examination of the rectum; otherwise a grave error may occur. The presence of left-sided abdominal pain, bilateral rigidity of the lower abdominal wall, and bladder irritation is most suggestive. When an appendix abscess is beneath the terminal mesentery and ileum, intestinal obstruction, a sequel of operation, is more likely. Intestinal obstruction, under these circumstances, is the result of fixity of the terminal ileum, its loss of the power of contractility making it an integral part of the wall of the abscess. Both early and late obstruction may and do occur under these circumstances. In these cases I frequently make an ileocolostomy at the primary operation, and practically always when making a secondary operation. This is truly a life saving procedure. I am sure some avoidable deaths occur when this is not practiced. I have seen this misfortune many times.

In the presence of advanced peritonitis and distention together with the deep position of

the appendix, it is often impossible to decide the location of the appendix, a fact that adds materially to the danger of operation. If I appear to be exaggerating I can only say that long and varied experience in appendiceal surgery has given me many surprises as well as opportunities to declare that there are no limitations to the pathologic possibilities of the diseased appendix.

In conclusion let me say that all cases of acute appendicitis, typical or atypical, are not necessarily emergency cases, though they are regarded as such by many doctors and surgeons. With your permission and forbearance, I will describe the practice in the Lankenau Clinic in handling these cases.

All cases without a forbidding peritonitis are operated on immediately, i. e. as soon as possible after admission. The exception is the mild case admitted at night, where there has not been a severe paroxysm of pain indicating perforation, or where the pain has not subsided and there has not been a chill followed by fever; these cases are operated upon on the following day. The case in which the pain has more or less subsided and has been followed by chill and fever, is sure to be gangrenous and is operated on immediately. Cases admitted with a peritonitis and rigid abdominal wall, usually are operated upon immediately. Rigidity of the abdominal wall indicates peritoneal irritation, the degree of rigidity denoting the severity of the irritation or of early peritonitis. The patient admitted with a circumscribed or diffusing peritonitis and rigid abdominal wall is operated upon immediately, while in the patient with relaxed abdominal wall and distention, where the site of the lesion is not definite, operation is deferred until the peritonitis subsides and localization has occurred.

Diffuse peritonitis with relaxed abdominal wall and distention is treated by anatomic and physiologic rest and not treated surgically until the peritonitis has subsided. In our experience (with few exceptions) this takes place in due time, and then operation can be successfully performed. In late peritonitis we make neither a jejunostomy nor an enterostomy, believing we accomplish more by lavage that relieves the stomach of regurgitative contents of the upper small bowel with less risk than does a jejunostomy that drains (when it does drain) nutritious material necessary to maintenance of the life of the patient. That inanition is a cause of death following jejunostomy in a percentage of cases notwithstanding the giving of all the water, glucose, salines, etc., possible by the present means in vogue, must be granted. When lavage of the stomach does not suffice to accomplish this purpose, we use continuous drainage through a retained jute tube carried into the stomach through the nose, or a duodenal tube through the mouth. Irrigation of the stomach every hour is done by the nurse until the return fluid becomes and remains clear, when the tube is removed. In some instances, one or other of these tubes is left in situ, 4-6 days. I verily believe the stomach, the duodenal, and the jute tubes are essential in the treatment, both before and after operation, in certain acute abdominal cases. I make this statement on the basis of an experience in a large number of patients. I take it for granted that all of you are familiar with these tubes so there is no reason to describe them.

SURGICAL RECORDS IN COLOR MOTION PHOTOGRAPHY*

J. Eastman Sheehan, M.D., F.A.C.S.,
New York,

Professor of Plastic Surgery at the New York Post-Graduate Hospital and Medical School; Surgeon and Lecturer to the International Clinic of Otorhinolaryngology and Plastic Surgery, Paris, France; Fellow Royal Society, London.

The last time I had the pleasure of addressing a gathering of this kind in Newark, I ventured to indicate the progress that had been made up to that time in obtaining photographic records of surgical operations. There are three purposes for which photographic records are needed. The surgeon needs them, to some extent, for his own office records,

*Delivered before the Academy of Medicine of Northern New Jersey, Monday, March 11, 1929.

and if this is not true as to all surgery it is very distinctly true as to the surgery of repair and reconstruction. Secondly, if an operation is worth bringing to the notice of other surgeons, whether in their presence or through the journals, photographs are essential to the demonstration. Finally, and on this point the College of Surgeons has been of late very solicitous, there are the possibilities in respect of teaching, for photographically reported, an operation might be effective, alone or as one of a series, regardless of the presence or even the existence of the operator. As I mentioned when here last, the possession of a carefully acquired series of colored motion photographs, which might include the works of one or a dozen master surgeons, would be a priceless addition to the teaching facilities of any medical school.

At that time there was reason to believe that something worth while was being worked out in Germany, but under the disadvantage implied in compulsory use of the telescopic lens. If it was successful, there has not been, as yet, any extension to this side of the ocean. Last summer, however, I had the good fortune to learn of a process devised in New York and, after some experiment, permitted and encouraged by the authorities of the Postgraduate Hospital, I have been enabled to produce the records to be shown here tonight, the first of their kind to be exhibited on this continent at least.

The credit for this is due, of course, to those who have worked so assiduously to improve upon the technical perfections of the motion picture industry in this country. It is only right to add that surgeons impressed with the desirability of keeping surgical records have followed them closely. There are at this moment several collections of these records which are of distinct value. The single limitation to that value is the absence of color. But that, one does not have to stop to realize, is a very serious limitation. After all, a single-tone photograph, moving or otherwise, does not provide a faithful reproduction of vessels and tissues.

There is nothing in the physics of the new process that is difficult to understand. Proceeding from the knowledge that everything about us can be resolved into 3 primary colors, red, yellow and blue, the problem is to separate these elements in the photographing and to reunite them in the projection. Mr. Lane, with whom I have been associated, has adopted what seems the very simple plan of devising 2 filters which enable him to separate the colors, part of the yellow going with the red and part with the blue. The images are taken simultaneously through 2 lenses, one for each filter. The images are complete as to detail, separate as to color values. They are transferred, one immediately under the other, to ordinary motion film, and from this film they are projected, again simultaneously, and again through 2 lenses and 2 filters, to the screen. The problem of adjusting the position and speed of the filters to the speed of projection has not been beyond the capacity of these experts, and the results are what you will see. I may say that we are experimenting even further and expect to have before long some examples of operations, which are described as we go along, by the "movietone" process. A hundred years from now students may have before them, to see and also to hear, an operation for brain tumor by Harvey Cushing, his hands at work, his voice speaking.

The operations presented on this occasion have at least this merit, that they show very graphically what might be seen, though not to as good advantage, in the operating theatre of the Postgraduate, in the plastic surgery department. They are designed to illustrate what we believe to be the best methods of coping with some more or less familiar difficulties. They have at least that much teaching value.

The staple munitions of this order of surgery are skin grafts, epidermic, full-thickness, pedicle, simple, delayed or tubed. Examples are given of their use, and of the manner of handling them.

For the epidermic, or Thiersch graft, so generally useful, there has been chosen a case in which the hand had been immobilized by a long, thick cicatrix, extending along the arm to the knuckles. We show excision of the

scar, followed by disengagement of the tendons from the deep scar, splicing of one of the tendons, covering of the large defect with a Thiersch graft, and resulting restoration of function to the fingers and hand itself. It will be noted that the graft, even of these dimensions, being a mere shaving from the skin surface, is taken without anesthesia and with scarcely any bleeding or inconvenience to the patient.

The Wolfe, or full-thickness graft, is illustrated in the case of a woman from whose upper lip and face there was removed an area of skin surface scarred by disease, replacement being by a graft from the abdomen. To be noted are the shrinking of the graft, the change of color to a dead white, and the stretching as the graft is sutured into place. Here we have a notable instance of the superiority of color as an aid to visualizing the process of repair.

The use of migrated tube pedicle is shown in the repair of a cancer defect on the side of the nose of an elderly patient. Other examples are given of the raising and return of pedicle flaps (delaying) and of the formation of tubes.

Since the opening of the clinic, probably the most frequent demand for its services has to do with nasal disfigurements, which are more common in civil life than any of us had realized; to say nothing of the number, now almost mathematically calculable, of injuries to this and adjacent areas through motor accidents. Simplification has led to a method of reconstruction, good in the majority of instances, whereby the correction can be made by drawing upon the hypertrophied tissues of the nose. This method is shown, as is the operation, necessary in some cases, for obtaining cartilage from the costal crest. In the particular instance the condition of the patient made it necessary to store the cartilage under the breast, which is also shown.

Two operations are included as indicative of the variety of calls made upon the reconstructive surgeon. In the first, the thigh is opened to afford strips of fascia which are used for the correction of unilateral facial paralysis. It will be noted that, apart from the distortion, there was serious functional derangement at the mouth, which was corrected when the symmetry had been restored by the tension of the fascia strips. These are carried under the skin by a special needle, made fast at 3 points, 2 on the lips beyond the philtrum and 1 at the mouth angle; they are then drawn up and securely sutured, 2 just forward of the ear, the third over the temporal muscle. The portrayal is the more strikingly lifelike from the fact that the apparently energetic intervention was made under local anesthesia. A subsequent photograph reveals the correction, in the return of symmetry to the face, as well as the freeing of the lip muscles from the previous restraints.

Finally, there is shown, as a suggestion that the trend in this work of reconstruction is strongly and inevitably toward the dealing with cancer defects, an example of the application of diathermy to eradication of cancer of the larynx, partly intrinsic, partly external to the larynx. The exhibition enforces the claim that, by reason of its relative bloodlessness and its obvious mercifulness, the use of diathermy is coming to be accepted as the preferred method when dealing with these growths, and notably when, as is now the rule, ultimate replacement is to be regarded as part of the original planning.

MILD FORMS OF TRICHINOSIS

Lodovico Mancusi-Ungaro, M.D.,
Newark, N. J.

Trichinosis is a disease much more common and much less formidable than generally believed. Its diagnosis presents little difficulty when suspected, but, although severe cases are sooner or later recognized, the majority of the milder cases are seldom diagnosticated.

During the last 4 years I have had the opportunity of observing 67 cases in my hospital and private practice. With an early diagnosis, it was possible in many instances, by getting the infected pork, to confirm the diagnosis and to destroy the contaminated meat. Thirty-eight patients belonged to 5 dif-

ferent groups, each group infected from one common source. The rest were isolated cases. No patient was infected by smoked or cured meat; the great majority of cases were caused by fresh sausages. My cases were all mild, and all ended in recovery. An analysis of the symptoms will be of interest.

Fever was present in 52 cases, ranging from 99° to 103°, and lasting from 2 days to 3 weeks; it was always irregular; probably it was present in all cases at onset.

Pain or tenderness was present in all, varying from a slight ache to severe or excruciating pain. Although variously referred it was most common in the muscles of the back, shoulders and head.

Gastro-intestinal symptoms were rather uncommon; in 15 instances there had been diarrhea, but constipation was almost as common.

Considerable swelling of the face was present in 30 cases, less marked in 12 and only detectable on careful examination in the others. It varied from a slight edema of the upper lids, to a very marked swelling of the upper part of the face, giving the patient a leonine appearance. It was always more pronounced on the upper lids and above the zygoma; very often there was a slight exophthalmos, and the eyes looked watery. Appearance of the face was peculiar and not easily forgotten after a number of cases had been observed.

Eosinophilia was present in all but 1 case; along with swelling of the face it was the most constant and reliable sign. It was found as early as the fifth day and as late as the fourth week. It varied from 10 to 45%.

Complications and sequels were few and unimportant; 10 patients had bronchitis; 7 albuminuria; 1 developed a systolic murmur at the apex during the second week of the disease, and it is still present after 2 years; 1 had glycosuria for a few days; many showed temporary anemia.

The majority of cases could be grouped under 3 different types. A report of a case in each group may be illuminating.

Influenzal type. Patients feel broken up; have fever, headache, or backache; there is coryza, and the eyes have the appearance of being swollen and inflamed; there is some gastro-intestinal disturbance. As these cases are more common in the fall and winter, when pork is extensively consumed, and when influenza is usually common, diagnosis is confusing and often erroneous.

J. N., aged 29, married, mechanic. Nothing important in history except great susceptibility to colds. Three days previously, after working in a damp place, felt feverish, had muscular pains, especially of the back, slight photophobia and sore throat. The same day a diagnosis of influenza was made. Next day patient developed a stitching pain on the right side, which became worse and, as influenza and pneumonia were almost epidemic, a consultation was requested.

Temperature was 102°; pulse 100; respiration 22; occasional mucous râles at base of the right lung, but no other respiratory sign; marked tenderness along the spine, the deltoids and the right intercostal muscles; eyes presented a marked swelling, more evident on the upper lids; urine negative; eosinophilia 35%.

Patient admitted having eaten some liver from a pig bought from a farmer, which pig had been divided between his family and that of a relative. Investigation disclosed the fact that 2 more members of his family and 4 of the other family had mild symptoms of the disease; none of them felt sick enough to require a doctor. The cases were reported to the local Board of Health and although biopsy was refused, numerous trichina larvæ were found in the meat, which fortunately had not as yet been used in great quantity. Evidence in a suit of law that followed discovery of the disease showed that the meat had been inspected and stamped by government officials. All these patients made uneventful recoveries.

Nephritic type. Patients are usually seen late, and give a history of having been feeling poorly, with headache, backache, slight fever and anorexia. There is albumin (sometimes casts) in the urine and the whole picture is very suggestive of nephritis.

A girl was sent to the St. James Hospital Pediatric Clinic, by the school nurse, because of general malaise. Examination aroused sus-

picion of trichinosis. On inquiry, we were informed that the mother had been ill with nephritis for 3 weeks, and her attending physician, on being advised of our suspicions, requested a consultation. Mrs. B. C., aged 41, housewife, had been confined to her bed with silght fever, severe headache and backache, weakness and nausea. The attending physician stated that there had been quite some swelling of the lids, and that the urine had contained albumin and casts. Patient had been on a milk diet for 2 weeks and had been improving. Examination revealed: No fever; some tenderness along the lumbar region and in muscles of the neck; slight swelling of the eyelids, more marked on upper lids; urine contained a fair trace of albumin and 1 or 2 hyaline casts; blood, as in the case of her daughter, showed very marked eosinophilia. Patient recalled having eaten some fresh sausages a few days before feeling ill.

To confirm diagnosis, a biopsy was asked and obtained. Trichina larvæ were found. Two more members of the family who had been feeling poorly showed some swelling of the eyelids, and eosinophilia.

Due to lateness of the diagnosis, the infecting material could not be recovered.

Rheumatic type: Patients have moderately high temperature, severe pains and some swelling around the joints, especially the shoulder and the mandible. The swelling seems to extend to the eyes, and there is marked pain on motion. The picture is highly suggestive of an infective arthritis, and generally such diagnosis is made.

A. M., aged 40, tailor, married, and never before sick. Six days previously woke up during the night with severe pain in a shoulder joint. Had fever, headache, and was very constipated. During the day pain increased and attacked the other shoulder and the back. There was slight swelling and very marked limitation of movements. Although the case was very suggestive of infective arthritis, made more probable by infected teeth, analysis of the symptoms showed that the pain and the swelling were not in the joints but in the neighboring muscles. Eyes showed the peculiar swelling and exophthalmos so common to trichinosis. Examination of members of the family discovered 2 children and a sister-in-law who had not been feeling well and who had symptoms suggestive of trichinosis. The blood of all showed marked eosinophilia. It was discovered that the sister-in-law had prepared a quantity of sausages and that all had partaken of them. They still had some of the sausage, which the Board of Health confiscated and in which numerous trichinæ were found.

Comment. Patients with muscular pains, fever, and swelling of the eyes, should suggest trichinosis, and if marked eosinophilia is present further steps must be taken to prove or negate this diagnosis. Recognizing that persons are generally infected from a pig purchased in its entirety, portions of which are used from time to time, and possibly distributed among relatives, the importance of making an early diagnosis and destroying the remaining infected material is obvious.

Trichinosis in the milder forms is common and often exists unrecognized. The commonest types which are apt to be overlooked are the influenzal, nephritic, and rheumatic. The peculiar swelling of the eyes, muscular pains and eosinophilia are the most suggestive and reliable symptoms.

OBSERVATIONS ON 1500 FEEDING CASES

John Howell West, M.D.,
Easton, Pa.

The subject of infant feeding is of such wide scope that in this short paper only a few practical points will be deduced from the cases cited, and no attempt made at continuity. The new-born infant may be compared to a delicate hot-house plant suddenly thrust into the outdoors. The needs for pabulum, warmth, light and moisture are analogous.

In making a survey of 1500 infant feeding cases, 2% of the series were found to have received drug medication, which seems to point very strongly to the fact that the various symptoms to which the baby is heir may practically all be corrected by feeding man-

agement. Many babies of this series when first seen were suffering from intense colic, which was relieved in the vast majority of cases by a simple dietetic change, with possibly the addition of a low enema.

The new-born baby is usually put to the breast about 8 hr. after birth, being nursed every 6 hr. during the first day, 4 hr. during the second day, and thereafter every 3 hours. Some pediatricians advocate 4 hr. feedings in early infancy, but in our experience the average baby seems to be better satisfied and gains more regularly when on the 3 hr. schedule. In a few cases where there is evidence of delayed emptying of the stomach, as evidenced by repeated regurgitation, vomiting, or poor appetite, the 4 hr. schedule is used. At about the age of 4 months, 4 hr. feedings are started, the feeding hours being 6 and 10 a. m., and 2, 6 and 10 p. m. At about the age of 6 months many babies thrive on 4 feedings a day, the 10 p. m. feeding being eliminated. As to quantity per feeding, from the first to the fourth week, 1-4 oz. are usually taken. This amount may be gradually increased until at the age of 4 months 8 oz. feedings are given.

A feeding problem very frequently arises during the first 2 weeks of life; the baby is often not satisfied with the breast feeding, as evidenced by more or less continuous crying before and after feedings, small grass green stools and, very frequently, a rise in temperature, the so-called "inanition fever". Before mixed feedings were used many babies were weaned prematurely at this stage because of the symptoms just enumerated, coupled with a rapid loss of weight. Complemental or mixed feedings have solved the problem in a great many cases.

Complemental feeding as distinguished from supplemental, means that each individual breast feeding is complemented by the addition of artificial food. The technic is as follows: The baby is put to each breast 5 minutes at each feeding, and then given 1-2 oz. of formula. If convenient to do so, the baby may be weighed before and after breast feeding with the clothing on, the difference in weight, of course, representing the amount of breast milk taken. The formula is then used to make up the difference in total quantity desired for the feeding. As the mother's milk increases, the bottle feeding may be decreased and finally stopped. If the mother's milk fails eventually, bottle feeding may be continued without difficulty.

After the first month it has been my custom to give the breast fed baby one bottle feeding each day, usually in the afternoon. The mother is thus given an afternoon off from her nursing duties, this rest very frequently resulting in increased secretion of breast milk. The baby is also accustomed to the bottle so that when the time for weaning comes at about the age of 9 months, full artificial feeding may be instituted without upsetting the routine of the household.

About 60% of all babies fed artificially, thrive satisfactorily on the simple type of formulas to be outlined. Two simple methods for determining the 24 hr. formulas are as follows: No. 1. Use 1½ oz. milk per pound of body weight, making up balance of formula with water. Add 3 rounded tablespoonfuls (1½ oz.) of carbohydrate. No. 2. Formula may also be estimated roughly according to age. From birth to 2 months use 1/3 milk, 2/3 water and 3 tablespoonfuls carbohydrate; from 2 to 4 months, use ½ milk, ½ water and 3 tablespoonfuls carbohydrate; from 4 months to 1 year use ¾ milk, ¼ water and 3 tablespoonfuls carbohydrate. Thirty and 40 ounce formulas are usually ordered, depending on the amount needed. The usual carbohydrates used are granulated sugar, sugar of milk, Karo syrup, Mellins Food and Dextri-Maltose.

The instructions given to the mother for the preparation of the formula are as follows: Mix the desired quantity of milk and water; bring to a boil, then transfer to a double boiler and let simmer for 30 minutes. While mixture is still hot stir in the desired amount of carbohydrate. The formula is then allowed to cool and placed in the ice-box. At feeding time pour the required number of ounces into the bottle and warm to blood heat.

At the present time pediatricians in this country are almost universally agreed as to

the advisability of boiling all formulas. It is my practice to boil all milk, whether certified or not. The advantages of boiling the formula briefly are two-fold: the milk is rendered definitely sterile and the tough cow curd, never intended for the human infant stomach, is broken up into small flocculent masses resembling the curd of human milk. According to latest scientific opinion, boiling causes a deterioration of vitamin C, but has no effect on the other vitamins. It is modern practice, of course, to add vitamin C to the daily dietary as a routine procedure, orange juice or tomato juice being used.

The baby should be fed only at specified hours, and usually in the crib. Awaken promptly at feeding time. The bottle should be held during the entire feeding, lasting not more than 20 minutes. The flow of the nipple should be about 1 drop per second; if necessary, enlarge opening with hot cambric needle. If food is taken ravenously, withdraw nipple momentarily every few seconds to prevent swallowing of air, which is a very common cause of colic.

As the plant needs warmth for proper growth, so does the baby thrive best at certain fixed temperatures. In our series, optimum gains were always obtained when the rectal temperature varied from 98° F. to 99.6° F. Babies with subnormal temperatures or above 99.6° F., gained indifferently, if at all. Satisfactory gains in weight frequently resulted from the simple expedient of regulating the body temperature. Temperature is easily regulated upward by the use of external heat, such as hot water bottles placed about the crib, and also by discontinuing the daily tub bath and using olive oil inunctions instead. Higher temperatures during the first few weeks of life are almost invariably due to deficient fluid intake. In a series of 200 of our cases with elevations of temperature during the early weeks of life, 196 were found to be due to dehydration, 2 to otitis media, 1 to pyelitis and 1 to pneumonia of the newborn. The simple expedient of complemental feeding (furnishing additional fluid) resulted in a prompt lowering of temperature in these cases. The need for fluid has been estimated at 3 oz. per pound of body weight.

It has been only during the past several years that the vital importance of ultraviolet light in the successful management of babies has been appreciated. Dr. Alfred E. Hess, of New York, has made many valuable contributions concerning the antirachitic value of this therapy. It is now well known that babies receiving satisfactory feeding management develop rickets very readily when deprived of sunlight or its substitute, artificial light emitted by the quartz mercury vapor lamp. Babies born in the fall develop rickets much more frequently than those born in the spring with a summer of sunshine ahead of them. As the plant withers and fails to thrive when sunlight is taken away, so does the baby develop the deficiency disease of rickets when robbed of sunlight or its equivalent. Breast-fed babies, contrary to former teachings, develop rickets just about as frequently as those fed artificially. It is very prevalent in the homes of the rich as well as the poor. Rickets can no longer be called a "tenement house" disease associated with poor hygiene and sanitation.

Substances containing vitamin D, the antirachitic vitamin, apparently derive this quality from the fact that they have absorbed the ultraviolet radio activity from the sun. Thus it is that cod liver oil apparently derives its antirachitic value from radiant activity. Just how cod liver oil acquires this activity is not known. Experimentally, Hess has shown that olive oil irradiated in a flat dish under a quartz lamp for 15 minutes becomes as antirachitic as the best grade of cod liver oil.

In the treatment of this light deficiency disease, body exposure to sunlight is, of course, indicated. This treatment sounds very simple, and many medical men consider that their duty to the patient is entirely fulfilled by simply advising sun treatments. Unfortunately, the solution in the industrial East is not so easy. Experiments made in New York City and Chicago during the past Winter have shown an entire lack of ultraviolet in the sunlight from September until early in March. Because of smoke and dust which impregnate the air over industrial cities, the ultraviolet content is rapidly lost. Thus it is that Hess

has stated that 1 quartz lamp treatment is in his opinion equivalent to 30 exposures to natural sunlight. The inference drawn, of course, is that his conclusions were based on atmospheric conditions in New York City. For babies living in the country or in the mountains, simple sun treatments are sufficiently antirachitic. For the city baby, however, artificial ultraviolet as generated by the quartz mercury vapor lamp, has been found invaluable. In our series of 1500 cases, 25% were proved roentgenologically to have rickets. It has been my custom to give all feeding cases a short routine quartz lamp treatment during the winter season at each visit to my office. Physicians often ask for the technic used. The answer is that it varies according to the intensity of light generated by the various types of quartz lamps. The object to be attained is a dose just short of an erythema. The cases of rickets in our series were given treatments once and sometimes twice weekly, the condition clearing up in an average time of 6-8 weeks. The criteria as to improvement and cure, in addition to the roentgenologic evidence, were steady gains in weight, development of firm musculature, ruddy healthy color and a contented happy baby.

THE HEART MUSCLE

F. P. McKinstry, M.D.,
Washington, N. J.

During my student days and for years after in the study of cardiac diseases, the emphasis was placed upon the heart valves. The conception of the heart as a pump, and its organic diseases as caused by failure of the valves to function mechanically, was generally accepted. Even DeCosta, that prince of diagnosticians, under whom I had the good fortune to sit, gives a clear description of myocardial disease in his "Medical Diagnosis", published in 1876; but under the caption, "Fatty Degeneration of the Heart", he describes the only form of muscular degeneration then recognized. In those days, if a murmur was discovered (it might have been transient or permanent, hemic or organic), the bearer was branded as having "heart disease" and he was fortunate if digitalis was not given on general principles.

With the passing years emphasis has been shifted entirely, so that now our chief concern is the condition of the heart musculature. I remember that some years ago one of the younger Philadelphia men, speaking to a body of physicians, emphasized the new position by this rather extreme statement: "The finding of a heart murmur has no more prognostic importance than a wart on the back of the neck." One of the old fellows, who did not quite accept the new theology, bawled out: "I would rather have the wart."

The heart, a hollow muscular organ weighing 8-12 oz., has a structure peculiar to itself; the muscular tissue differing somewhat from that of the striated or striped skeletal muscles and resembling somewhat the striated muscular tissue of the abdominal organs. The blood supply is from the 2 coronary arteries which have no collateral circulation.

The diseases of the myocardium naturally divide into acute and chronic. Of the acute infections those occurring during attacks of diphtheria and typhoid fever have been most carefully studied. In diphtheria this serious complication may, but does not usually, manifest itself during the first week. More frequently the symptoms of heart weakness are first observed during the second or third week and rarely during convalescence. The peculiar pallor, slight cyanosis, rapid, weak, irregular pulse, or what is even more grave, the slow pulse, make up a clinical picture sadly familiar to some of us. In typhoid fever changes of a similar character occur, although not so profound as a rule. After the second week, and continuing well into convalescence, the usual symptoms of acute cardiac insufficiency are present, as in diphtheria infection, but the bradycardia is lacking. In both instances the stethoscope will show a weakened or absent first sound, and a mitral regurgitant murmur may give evidence of an existing dilatation. Just what effect other infections, such as rheumatic fever, pneumonia and the erup-

tive fevers, have on the myocardium has not as yet been so fully demonstrated.

The principal intention of this paper, however, is a brief study of the chronic degenerative changes taking place in the myocardium. As intimated in the introduction, we are frequently consulted by patients past middle life with symptoms of cardiac insufficiency in whom there is no history of rheumatism or any other infection liable to injure the endocardium and, in fact, no evidence of valvular lesion is discoverable. There is usually some enlargement of the heart, either from hypertrophy or dilation; the arterial system gives evidence of senile changes; and angenoid symptoms are not infrequently present. The pulse is usually arhythmic and may be rapid or slow. In addition to other signs of cardiac insufficiency, I consider the irregular, slow pulse very characteristic of degenerated heart muscle. Of course, a neurotic arhythmia frequently occurs but may be differentiated by finding that the heart becomes regular on exertion and during fever; the irregularity is not constant and, what is more important, is not accompanied by breathlessness. Organic arhythmia is constant, is increased by exertion, and is accompanied by dyspnea.

Fatty degeneration is another form of myocardial disease but as the symptoms are practically identical with those of fibroid heart, I can find no points of value in differential diagnosis. Fatty infiltration is more easily suspected if not more easily demonstrated.

"Under the term *myocardial diseases* is now included a large class of infections resulting in increased connective tissue formation in the myocardium with degeneration of the muscular fibers. In a general way, it may be stated that blood supply of the myocardium is rendered deficient by reason of endarteritis, thrombosis or embolism in the majority of cases. Most of the examples of this disease are observed in men who have passed middle life, especially those whose hearts have been subjected to inordinate strain, as by excess in athletics and laborious occupations. Alcohol is an undoubted predisposing cause. Most cases are associated with generalized arteriosclerosis, hence the disease is sometimes referred to as 'gouty heart'. Chronic toxemia, notably lithamia and syphilis, must also be borne in mind as prolific causes."—(Bartlett, Philadelphia.)

While considerable is known in regard to the condition we are studying, yet a complete diagnosis is in many cases impossible in respect to form of degeneration and amount of muscular tissues involved; hence diagnosis must often be tentative and prognosis guarded. "Experiments have shown that considerable myocardial change is compatible with adequate reserve force of the heart. On the other hand, our present methods do not always reveal histologic alteration in the muscle commensurate with the functional disturbance in fatal cases of heart disease."—(Bishop.)

Today another form of myocarditis is recognized, viz, the late effects of toxic goiter, either the classical Graves' Disease or toxic adenomatous goiter. It needs to be emphasized that we may have toxic goiter without external enlargement or exophthalmus. I have seen 2 cases recently which illustrate both classes. January 29, I was called to a patient in the terminal stage of Graves' disease. She was edematous from head to foot, the legs looking like elephant's legs, the arms and hands in proportion; abdomen distended with ascites and large pleural effusion on the right side. Her heart was fibrillating like a dancing dervish without rhyme or reason. I gave an absolutely unfavorable prognosis. I recalled a record in my note book in which novasural had been used successfully in 2 "water logged" cases after failure with usual measures. I also recalled hearing my good friend Roberts speak of the remedy and I knew that he had studied its action in the Mayo Clinic, so I asked him to see the patient next day with me. He gave a trial dose of 0.5 c.c. intramuscularly. Having no unfavorable reaction, I gave 1 c.c. every 3-4 days until I think 5 doses were given. The effect was well nigh miraculous. The patient passed gallons of urine during the next 10 days or two weeks. The edema, ascites, pleural effusion, entirely disappeared and the heart resumed fairly normal beat and rhythm.

Illustrating toxic goiter without enlargement is the case of a man 50 years of age, who has been an apparent fibrillator for several

months; rest in bed, digitalis, quinidin, arsenate of quinin and crategus, all failed to influence the pulse rate. Two unusual symptoms—some tremor with extreme nervousness and lack of dyspnea led me at last to think of toxic goiter, which I ought to have th ught of before. I sent him to Dr. Gaines for a test of basal metabolism and the report was +48. I then sent him to Dr. Quiney for x-ray treatment. Dr. Quiney informs me he can promise 70% of recoveries in these cases by use of x-rays, and surgery promises much in selected cases.

MANIPULATION OF THE SOUND IN THE MALE URETHRA

George T. Spencer, M.D.,
Elizabeth, N. J.

"Passing a sound", "introducing a sound", "inserting a sound", are unfortunate expressions, since they connote a forcible ingress of the implement. The progress of a sound should be passive rather than active in character; adynamic rather than dynamic; it should consist of a serene and painless reception of the instrument by the urethra instead of a propulsive invasion of the urethra by the instrument, and should cause a minimum of trauma, physical or psychic, to the subject. Ceteris paribus, therefore, it would seem that a very valuable estimate of the operator's proficiency might be elicited from the patient himself. He, although, a layman, soon acquires (after he has been sounded a few times) inside information on the operation which is well worth consideration, and any technic which lessens his discomfort during the process, and yet has no contraindications, is to our advantage as well as his. The hundreds of extant articles on the manipulation of urethral sounds in the male make one hesitant in presenting any modification of the generally accepted method, but the hereindescribed procedure has yielded such satisfactory results that it is now tendered for professional appraisement. It was used primarily merely because it gave patients less annoyance than did the orthodox routine, but study of its details indicates its further value in protecting the prostatic urethra from instrumental injury.

The operator being right-handed, the penis is grasped behind the glans with the left hand and the sound handled with the right, in the usual manner, until the shaft of the instrument has been shifted to the median line and its tip is well within the bulb of the urethra. Then the organ, still held by the left hand, is stretched upward rather tightly over the shaft of the sound, whose handle is at this time released by the right hand. Following this the penis, still kept on the stretch, is depressed gently downward between the thighs, describing the arc of a circle. The sound itself is not touched during this maneuver. It is simply engulfed, swallowed, by the urethra, and the patient is scarcely aware of its entry. The success of the process depends on keeping the penis stretched while swinging it and its contained sound through the prescribed arc, for the elongation of the member makes the taut urethral walls guide the tip of the sound directly to the aditus of the membranous portion of the urethra, tends to relax the cut-off muscle by depressing the triangular ligament, and—if one may dare judge by the sensations of the patient—may even elongate the posterior urethra so that its walls are less obstructive to the instrument, whose tip follows very closely the subpubic urethral curve and consequently makes *minimum contact,* during its advance, with the *verumontane portion* of the canal.

OCULAR DISTURBANCES IN ORGANIC NERVOUS DISEASE*

M. A. Burns, M.D.,
Philadelphia, Pa.

When a practitioner of medicine claims he has never encountered an instance of brain tumor or other intracranial lesion, it is an admission that patients with such conditions have passed through his hands unrecognized. The brain has been proved to be one of the

*Read before the Section of the Eye, Ear, Nose and Throat at the Academy of Medicine of Northern New Jersey, at Newark, N. J., on April 8, 1929.

most common sites of pathologic lesions in the body. Tumors, abscesses, focal and diffuse areas of sclerosis, areas of softening, inflammatory exudates, hemorrhages and embolic, diffuse sclerotic and thrombotic areas must be very common. During the past decade many varied and interesting contributions have been presented concerning the diagnosis of intracranial lesions, and yet too often do we discover at the autopsy table the undetected condition. Just why we do not see as many cases of this kind as we should, I feel is very often due to the physician's undisputed acceptance of such an x-ray report as the following: "There is no evidence of intracranial pressure, no discernible pathology, and the suture markings are normal." Although the physician may recognize that there is something unusually wrong with his patient which he does not fully understand, he will feel he has done his full duty by having the patient's head x-rayed. Upon receipt of such a report as I have cited, he is very likely to put all thought of an intracranial lesion from his mind. Because of such reports, which are really very common, another brain tumor or intracranial lesion goes undetected. When we have educated the general practitioner who receives such a report not to stop at this negative finding, but to extend his studies to eye-ground examination and a general neurologic survey, then indeed shall we see intracranial lesions as they actually exist. It is appalling to realize how seldom these two examinations are requested, even by very careful men, after they have had their patients x-rayed and have received reports of negative findings.

Several years ago, in an effort to ascertain of just how much value the x-ray was in localizing brain tumors, I issued a questionnaire to members of the American Neurological Association. The following figures were the result, based upon 100 cases, 76 of which were reports from the Association and 24 from the service of the Jefferson Medical College Hospital[1]: Diagnostic, 3%; confirmatory, 36%; valueless, 47%; negative, 7%; not done, 7%. The percentage of 61 revealing no aid from this diagnostic measure proves to my mind that x-ray reports alone are of little value.

In reflecting upon the eye in its relation to neurologic diagnoses, one is surprised that so little emphasis has been laid upon this organ except by ophthalmologists and neurologists. Surely the time has arrived for members of these two specialties to begin an educational campaign among their brother members of the medical profession, and to so enlighten them that a study of the eye will become a part of their routine examination of a patient who to them presents vague clinical signs and symptoms which might be interpreted very differently by the ophthalmologist in his first examination.

Not very many months ago a prominent educator was admitted to the Jefferson Hospital in an unconscious state; he died in less than 15 hours after admission. The only history obtainable from the family was that for years he had been suffering from convulsions. This man had been studied by a number of capable physicians; his head had been x-rayed; a negative report had been rendered some years before; and the diagnosis of epilepsy had been accepted as correct. During his stay at the hospital, examination showed that in the upper extremities the deep reflexes were increased on both sides and were more exaggerated on the left. There was slight ataxia in both upper extremities, weakness of both hands, tremor of the fingers and of both hands, which tremor was intensified by an effort to grip. In the lower extremities the reflexes were increased on both sides and were somewhat greater on the left. There was no muscle wasting, but a weakness of the extremities was present. A definite Babinski sign existed on the right; there was a suggestion of one on the left, and a suggestion of ankle clonus on both sides. Spinal puncture revealed slight increase of pressure in the fluid; it was clear, containing 2 cells per cubic millimeter. Wassermann test of the blood and fluid was negative. Eye examination showed right pupil 4.5 mm., irregular in outline; left about 2.5 mm. and regular in outline. Pupils did not react to light; left eyeball deviated outward; rotations were unobtainable. Ophthalmoscopically, the disks of both eyes were striated and indirect; margins were blurred. There were numerous hemor-

rhages in the vicinity of the disks and the arteries were narrowed. Diagnosis was bilateral thrombosis of the central retinal veins. The patient died as a result of pulmonary edema. Postmortem showed a glioma in the right temporal lobe, involving the entire anterior portion of the right temporal lobe and fitting into the middle fossa of the skull on the right side. In this case I believe that if the neurologist had been given an early opportunity to study the case in detail, and had called the ophthalmologist to his aid, the brain tumor could probably have been discovered in time to permit its extirpation.

In another recent case at St. Mary's Hospital, Philadelphia, where the neurologic signs proved clinically that the patient suffered from a left frontoparietal tumor (there being present definite eye-ground changes) the x-ray report was absolutely negative for evidence of intracranial pressure or intracranial pathology. Here again, if the physician in charge had gone further and had a thorough ophthalmoscopic examination made after receiving the x-ray report, this tumor—which was discovered after the patient's admission to the hospital and later verified by operation and autopsy—could have been detected long before. It is with a feeling of chagrin that we see so many patients come to our nervous clinics and wards today showing typical signs of intracranial lesions which had not been thought of before their admission to the neurologic service.

The time has long since passed when any one branch of medicine can be practiced intelligently and effectively without a fair degree of knowledge concerning the relation which each specialty bears to all others. This does not mean that every physician should endeavor to be an expert in all divisions of medical science, but it does mean that he should be conscious of the help he may receive from or give to those working in fields other than his own. In ophthalmology this seems to be especially true, and those interested in this field are well aware that no ophthalmic hospital or clinic could exist today without the closest cooperation with internist, neurologist, otolaryngologist, and roentgenologist. In turn, ophthalmologists feel that they are able to assist in many disease studies, among which are certain vascular changes and lesions. Nowhere in the body can one see blood-vessels so magnified as the ophthalmoscope reveals them in the eye-grounds. Detailed changes in the vessels often have real diagnostic and prognostic value, but it should be emphasized that the interpretation of any fundus condition is largely dependent upon the opportunity which the observer has for repeated careful examinations under a great variety of conditions.

Probably in no condition is a properly made study of the ocular fundus of more value than in the early determination of vascular lesions of the brain, among which are hemorrhage, embolism, thrombosis and diffuse cerebral arteriosclerosis. The use of the ophthalmoscope not only makes it possible to detect variations from the normal in the retinal vessels, but in addition enables the observer to indicate the condition of the cerebral vessels. In 66 patients, subjects of retinal arteriosclerosis, investigated by Moore[2] during a period of 7 years, 44% suffered from some form of gross vascular cerebral lesion. Adams[3] in a similar series found 45%. He also studied 44 patients who had suffered from cerebral hemorrhage or thrombosis and found the retinal vessels were affected, either moderately or severely, in 70%. Similar observations by Gunn[4] disclosed retinal arterial degeneration in 59%. The close relationship which exists between disease of the retinal and of the cerebral vessels, then, is clear. It is probably true that where disease of the retinal arteries is apparent to ophthalmoscopic examination, disease of the cerebral vessels is certainly present. Of course, this is not always so, because even in advanced disease of the cerebral vessels the retinal arteries may not reveal evident disease to the ophthalmoscope. For instance, it requires an intimate knowledge of the distribution and behavior of certain retinal exudates which occur in arteriosclerotic retinitis in order to differentiate them from similar exudates which occur in the retinitis of advanced interstitial nephritis and diabetes. Changes in the retinal vessels, which at first glance seem to indicate primary vascular disease, may on careful examination appear as

due to a general rise in blood pressure. From these investigations we may conclude that about one-half of those who have retinal arteriosclerosis suffer from a similar condition of the cerebral vessels.

Hemorrhages and thrombotic lesions of the basal and central ganglia are so common today that when a physician makes a diagnosis of hemiplegia he is apt to go on his way perfectly satisfied that it is a definite and correct diagnosis, and not proceed with any further examinations or treatment to prevent a subsequent cerebral insult. In my opinion, many of these lesions could be detected long before the cerebral damage occurred if eye-ground examinations were made early. Certainly prolonged and intense thrombotic and arteriosclerotic conditions in these areas would show changes in the retinal vessels long before the patient came to the neurologist. I believe that nowhere in medicine do we need the ophthalmologist as we do in this class of cases.

At present I have under my care, and have had for the past 3 years, a man of 57 years, an accountant by occupation, who in January, 1925, suffered from a convulsive seizure and was taken to the hospital of the Ann Arbor Medical School for observation and examination. While there a tentative diagnosis of paresis was made. He showed irregular, unequal pupils, a slight tremor of the hands, lips and tongue, peculiar hesitating speech, and an increase in the deep reflexes. His spinal fluid and blood examinations, however, were negative. He was then given a provocative dose of salvarsan and again the spinal fluid and blood examinations were negative. He was admitted to the Jefferson Hospital after having had a second convulsion in May, 1926. On admission his clinical neurologic signs were: unequal, irregular pupils; slight tremor of the tongue, lips and hands; increase in deep reflexes, and slight scanning speech. In going over the history we found he had never been seriously ill except for his attack in Ann Arbor in 1925. He was a moderate user of tobacco and alcohol and gave a negative history as to any venereal infections. We too, in the beginning, made a tentative diagnosis of general paresis. When spinal fluid and blood examinations were negative he was given a provocative dose of salvarsan, and the second serologic examination at Jefferson was also negative. His eye-grounds showed definite indications of retinal arteriosclerosis. We were so impressed with this history clinically that we presented him to the Philadelphia Neurological Society where the consensus of opinion judged him to be a case of diffuse cerebral arteriosclerosis, nonluetic in character. The blood pressure was only moderately high, about 160 systolic. As I said before, this man has been under our care for the past 3 years; he has been given small doses of iodides and nitrites, and he has never had a convulsive seizure since the one in 1926. His eye-grounds have been examined frequently and the same condition is present in his retinal vessels. Surely if this man's eyes had been studied before his admission to Ann Arbor these 2 cerebral insults might possibly have been averted.

Another case which I have had under my care for some years is that of a woman of 40, the wife of a physician, who for some time had been complaining of tiring easily, and on several occasions of having experienced syncopal attacks. At various times she was troubled with peculiar tingling sensations in her right arm and hand. She was studied in a Philadelphia hospital 1 year before I saw her. So far as I could learn, an eye examination had not been made during this course of study, nor had a blood or spinal fluid examination been executed. She had a low blood pressure, 106 systolic. One year after she had been in the hospital she became very ill and 5 days later developed a complete hemiplegia of the right side, with slight aphasia. She was spastic, had increased reflexes, and showed a definite Babinski sign and ankle clonus on the right side. Her eye-grounds revealed a definite retinal arteriosclerosis. In summing up the physical signs in this case I made a definite diagnosis of thrombosis of the left internal capsule. As the patient was the wife of a physician it was rather difficult to determine, in my own mind, the cause of the thrombosis. I promptly thought of lues and alcohol. Her alcoholic tendencies were very moderate and therefore

I had to resort to examinations of the blood and spinal fluid. Both were negative, but the spinal fluid contained 18 lymphocytes to the cubic millimeter. The patient was treated with heroic doses of potassium iodide by mouth, mercury by inunction, spinal fluid drainages, and intravenous injections of salvarsan. After several months she made a fairly complete recovery. I see this woman every 6 months. Her eye-grounds show a very slight retinal arteriosclerosis, her spasticity has entirely cleared up, and while she does not present a definite Babinski sign, yet plantar irritation on the left foot produces decided flexion whereas there is little or no flexion on the right. In this case, too, I feel that if the eye-grounds had been examined while this woman was under observation a year before her cerebral insult, this thrombosis would not have occurred. She has a blood and a spinal fluid examination every 6 months. Both are negative, and there are no lymphocytes in the spinal fluid.

In a recent case studied by a prominent Philadelphia ophthalmologist the physician told the patient, a rather important person, that he had retinal arteriosclerosis, that he probably had cerebral arteriosclerosis, and advised him as to subsequent medical advice. The patient scoffed at the idea that the eye man could tell him he had a condition in his brain which would ultimately damage the cerebral blood-vessels and cause a stroke. In less than 6 months that man died from an intracranial hemorrhage. I do not know of more certain evidence than this, for those who seek further proof, that early eye examinations frequently and definitely disclose conditions of the cerebral blood-vessels.

It is not my thought to have you believe that all cerebral vascular conditions can be detected long before the cerebral insult takes place, but I do feel that in about 50% of such cases, early eye-ground examinations would aid us considerably. Two years ago a statistical study was made in the Philadelphia General Hospital of patients suffering from hemiplegia. Of the 173 cases studied pathologically by Anderson[5], 116 were diagnosed thrombosis, 22 hemorrhage, both 9, arteriosclerosis 8, total additional 18. It is to be noted, therefore, that about two-thirds of all the cases coming to autopsy during this study were shown to be thrombosis, so that the odds stood almost 2 to 1 in favor of this over all other possibilities. Surely the slow progressive change which occurs in thrombosis would show retinal arteriosclerosis if examined early. Here again, in my opinion, many of these cerebral insults could have been avoided, at least for a time.

Another important ocular finding which concerns organic nervous disease is that of nystagmus. Nystagmus occurs in various organic nervous conditions, not of the cerebral hemispheres, but of the midbrain, pons and cerebellum. It is especially characteristic of insular sclerosis, Friedreich's ataxia, syringomyelia, and cerebellar disease. It may also occur in alcoholic peripheral neuritis and in epidemic encephalitis. When nystagmus occurs in organic nervous disease there are usually enough definite neurologic signs to make the diagnosis clear. This is especially true in insular sclerosis, Friedreich's ataxia and epidemic encephalitis. On the other hand, nystagmus may confuse us and give a very definitely erroneous picture in a certain group of patients. Take for example epidemic encephalitis, in which the eye signs are quite prominent. In order of frequency, diplopia is the first symptom to claim our attention, and it is often, in mild cases, the first to occur and the first to disappear. It is usually for distance and is in all directions; meanwhile the vision remains normal. Nystagmus is not an unusual symptom and is horizontal. At the present time we have a number of cases in the Philadelphia General Hospital where nystagmus in epidemic encephalitis is quite conspicuous. A peculiar feature about these patients is their complaint of severe pain in the eyes, to such a degree that the eyes must be shaded for several hours each day. Optic neuritis was formerly not supposed to occur in epidemic encephalitis, but a number of writers have reported the presence of this condition, also hemorrhagic retinitis. Spiller[6] reports 3 cases in which there was decided choked disk.

In 'insular sclerosis, nystagmus is a very prominent symptom and with the other neuro-

logic signs is compartively easy to diagnose, but the case I am about to report was one of the most unusual I have seen, and one where nystagmus was a very confusing symptom. The patient, a white man, aged 22, was a theological student. His chief complaint was generalized weakness, difficulty in walking and nervousness. The family history was negative. The patient's history was negative and his general health had always been good. He had measles, whooping-cough and pneumonia during childhood and an attack of tonsillitis at the age of 17. There was no history of scarlet fever, rheumatic fever, diphtheria, chorea, influenza or typhoid. Two years before the present illness occurred he was sent abroad to an Italian theological seminary where the discipline was most rigid. After 14 months of this life the patient suffered a collapse. He was treated in the infirmary of the seminary for a time and was then sent to a hospital in Rome. He remained there about 6 weeks, apparently improved, and returned to the seminary. Following a hike several months later he had a relapse of his former illness with a partial paralysis of all 4 extremities. He was again taken to the hospital; completely studied, and a diagnosis of multiple spinal sclerosis was made. He was admitted to the Jefferson Hospital in Philadelphia, September 8, 1926. He had difficulty in walking and had a peculiar fixed attitude; his station was more or less guarded, he had a peculiar gait which looked spastic but, on further examination, did not present any definite spasticity of the lower limbs. The position seemed fixed, and when he walked the arms did not swing. On turning he moved the entire body, like one suffering from postencephalitis. His reflexes were markedly plus, but there was no definite evidence of a Babinski sign or of ankle clonus and no definite spasticity of the upper extremities, although there were fine tremors of both hands. He had lost abdominal reflexes; there was no sphincter disturbance; eye-grounds were negative but there was a lateral nystagmus. Spinal fluid and blood examinations were negative and there were 4 cells to the cubic millimeter. A diagnosis of insular sclerosis was made, and this case was diagnosed on several other occasions as one of insular sclerosis. During his stay at the hospital there were times when the boy seemed better, and there were times when his nystagmus seemed to be fleeting. As a result of these changes we presented him to the Philadelphia Neurological Society for discussion. The night he was presented he showed a nystagmus, fixation of the body, fine tremors of the hands, and a peculiar speech defect. During the examination it was learned that he had had a slight rise in temperature during one of the attacks which he suffered in Rome. A spirited discussion ensued. Several men thought the case to be typical postencephalitis; several others believed it to be typical insular sclerosis; and still others believed it might be functional. We took him back to the hospital and for 6 weeks treated him most heroically in our electrotherapeutic and physiotherapeutic departments. At the end of that time he was perfectly well; the nystagmus had cleared up and the rigidity had disappeared, though he still had lost abdominal reflexes. He returned to the seminary and after being there 3 months suffered a complete recurrence of former symptoms—the nystagmus, rigidity, tremors and speech difficulty all returning. My course of treatment then was entirely different. I told the boy he was evidently in the wrong place, that these attacks were brought on by his mode of living and by the thought that he had probably selected the wrong vocation in life. He left the seminary, has been working in one position for almost 2 years, and is perfectly well, happy and contented. This case illustrates very clearly the fact that we must be most careful and guarded in cases of nystagmus, even where the physical signs tend to be present. This patient was studied by a number of eminent men and in the meeting of 1927, which was devoted to mistakes in diagnoses during that year, this case was again presented before the Philadelphia Neurological Society.

Conclusion

Ocular disturbances in organic nervous disease are most important. I feel that no clinical neurologic examination could be complete, even in suspected cases of organic disease,

without a thorough ophthalmoscopic study, and I am convinced this should not be limited to one examination. I believe, as Dr. Eagleton[7] expresses himself in his article on Ophthalmoscopic Examinations in Suppurative Disease of the Brain, when he says: "I have called the attention of ophthalmologists to the fact that they have in their possession a means whereby they can be of great assistance to the man who does not know whether his patient has localized intracranial suppuration or not. Today the rule in all hospitals is to send for the ophthalmologist, who on examination says that the patient has or has not papilledema, and goes on his way perfectly satisfied with that. As has been said, it may or may not be present, but that has nothing to do with the subject. But if these ophthalmologists should make daily examinations of the fields in edema of the brain, the result of infection, they will contribute something of great importance in the localization of infective lesions within the cranium".

I heartily agree with Dr. Eagleton in his thoughts concerning early and frequent ophthalmoscopic examinations, and I feel that a general neurologic study should be added to this. Continued effort on the part of the neurologist is necessary in order to teach the general practitioner the signs and symptoms which should at least suggest to the latter the possibility of some intracranial condition. I do not wish you to think that I have exhausted the whole subject of the relation of arteriosclerosis to the eye. There is the question of optic atrophy and retrobulbar neuritis and probably other complications that will occur. What I have endeavored to do is to set forth the possibility of early diagnosis of eye changes in suspected cases of intracranial vascular lesions. I wish to emphasize the thought that in all cases where the clinical symptoms seem vague and point to some cerebral lesion, the general practitioner should be trained to ask for an eye examination first, and later for a complete neurologic survey. He will invariably ask for an x-ray examination of any part of the body. Let us hope that in the future when he requests an x-ray of the head and receives a negative report, he will seek further studies of the eye and nervous system. If this procedure can be accomplished—and I believe it can—then I feel the day is not so far distant when we shall be teaching preventive neurology just as we are today teaching preventive medicine.

REFERENCES

1. Burns, M. A.: The Relative Value of Diagnostic Measures in the Localization of Brain Tumors. Arch. Neur. & Psych., 20:627-634, Sept., 1928.
2. Moore, R. Foster: The Retinitis of Arteriosclerosis, and Its Relation to Renal Retinitis and to Cerebral Vascular Disease. Quart. J. Med., 10:29-75, 1916-17.
3. Adams, P. H.: Arteriosclerosis of the Eye. Brit. J. Ophth., 4:297-318, July, 1920.
4. Gunn, Marcus: Ophthalmic Evidence of General Arterial Disease. Trans. Ophth. Soc. U. K., 18:356-381, 1898.
5. Anderson, Forrest N.: Correlation of Clinical and Pathologic Diagnoses in Hemiplegia. Personal Communication.
6. Spiller, W. G.: High Grade Choked Disk in Epidemic Encephalitis. J. A. M. A., 80:1843-1844, June 23, 1923.
7. Eagleton, Wells P.: Localizing Value of Ophthalmic Examinations in Suppurative Diseases of the Brain. J. A. M. A., 92:713-720, March 2, 1929.

THAT LIGHT OUTDOOR JOB

B. M. Harman, M.D.,
Superintendent Essex Mountain Sanatorium

During the last few years the attention of those interested in antituberculosis work in the United States has been, to some extent, focussed on the rehabilitation of the tuberculous patient after his period of sanatorium care has been completed. Various experiments are under way in different localities which it is hoped will offer some solution for this problem.

The Altro Shops, in New York City, are possibly the most successful in these experiments. The secret of their success seems to lie largely in having chosen a few articles of definite commercial value for manufacture, in the careful selection and observation of the workers, together with excellent salesmanship. It seems to me, however, that there is a factor to be considered in the success of the work shop which is often overlooked because the public, and possibly some of the medical profession, have not yet realized that the old

fetish of a "light outdoor job" for the tuberculous is just that—a fetish.

It is interesting to note that Dr. Varrier-Jones, head of the Papworth Village Settlement near Cambridge, England, considers gardening and looking after chickens far harder work than any to which he assigns his patients in the factory. Surely some proof of this lies in the number of admissions and the condition of patients received from time to time in every sanatorium, who, having been sent to the country to do light work on a farm, or having gone on their own initiative when told they must get out of the city, have tried a chicken farm for some time.

An interesting sidelight on the "light outdoor job" was given by T. B. Kidner, who served in the rehabilitation departments of the Canadian and United States Governments during and after the war, when he told the story of the Senator who thought that he had solved the problem of rehabilitation for tuberculous ex-service men when he suggested their appointment as mail carriers. Mr. Kidner said: "We must get away from the idea of the light outdoor job. There is no such thing." However, the fact that there are no light outdoor jobs is not the crux of the situation. In dealing with the human factor no rule of line will apply to all cases. The art of medicine must be practiced as well as the science of medicine. Why attempt to make a farmer of the man who by training and preference is a mechanic? Why condemn the individual in whom the love of the city is deeply imbedded to the, for him, intolerable solitude of the country? The individual must be considered, his or her natural inclinations and training, as well as the physical and financial condition. It is this consideration, as well as the fact that the Altro Shops draw their workers from the city in which they are located, that has much to do with the successes of that enterprise.

The rehabilitation and vocational training done by the United States Government has been a long expensive experiment and can be of little value in this problem of rehabilitation for the tuberculous. The only completely successful experiment in rehabilitation which we have to guide us is the Papworth Settlement of which I have already spoken. Whether a settlement of that kind would be practical in the United States is yet to be demonstrated. Whatever may be done in the future in the matter of rehabilitation of the tuberculous, the public must be educated to forget or abolish the idea of the "light outdoor job".

The ideal form of rehabilitation, of course, is to restore the patient with arrested tuberculosis to his or her job and community. This is not always as impossible as it may sound. Patients who are able to understand and practice the essentials of the cure, who are willing to submit to the self-imposed discipline of the "never hurry, never worry" maxim, and who are willing to limit social activities to the necessary minimum, can usually return to their former occupations with a feeling of assurance. Particularly is this true when they are assured of the aid and advice at all times of the sanatorium clinic physician and nurse in their vicinity. The higher standards of living in the United States also make the home more suitable for the returned patient, while an interview with the family by the sanatorium physician, who impresses them with the need for careful sanitation and conservative living, if the patient is to continue in improvement, paves the way for the patient's future regimen.

There is one type of patient, however, to whom this form of rehabilitation is impossible, and for whom some relief must be found. That is the arrested case in which tissue destruction has been so extensive as to leave cavitation, and where shortness of breath is sometimes marked.

In our sanatorium, whenever possible, we have employed such patients, whose prognosis is undoubtedly fairly good under favorable circumstances, in various positions about the institution. I have in mind a woman, cavitation in both lungs, with marked fibrosis, whose general condition seemed exceptionally good and whose only discomfort was a marked shortness of breath upon exertion. The acute need of financial aid encouraged me to assign her to the laundry where her hours of work were from 7 to 12 and from 1 to 4:30, with Saturday afternoons, Sundays and holidays

off. She worked for 4 years without the loss of a day and only suffered relapse when a slight epidemic of influenza among the employees caught her.

We have among the Sanatorium employees several patients of the same type who have been employed there for 2 or more years without any signs of relapse. These patients are obviously unfit for the hurry and worry of competitive work. When there is no employment at the sanatorium for this type of patients, they become a tragic problem, for invariably, heavy employment, even of the same character successfully performed at the sanatorium, is not open to them in this day of medical examiners and the continued ostracism of the tuberculous, and I doubt their ability to carry on in an atmosphere of rush and continued strain. But the mythical "light outdoor job" would be even more deadly for them. They must be protected from variable weather conditions, and occupation must be free from worry and annoyance. The only type of outdoor work which I have seen successfully carried on by the tuberculous, has been that of a few men whom we have placed as taxi drivers and doormen, and I would hardly designate either of these occupations as "light". The patients placed in these positions have been those with little involvement and whose prognosis seemed excellent.

In conclusion, the earlier we admit that the "light outdoor job" does not exist, the more wisely can we advise our patients. We must judge their capacity for employment by the amount of fibrosis, duration of illness, and possible prognosis; not by the lung tissue involved. Further, a careful testing of the patient's condition by regulated exercise and recreational occupation during the last months of sanatorium life will enable the physician to gauge the working capacity more accurately. The educational work in tuberculosis is not yet complete. Many harmful ideas passed on from the early days of the antituberculosis movement must be dispelled.

AUTUMN REVERIES

By Muriel Rubert

I do not know how such things be . . .
  I only know a maple tree
In late September dims the eyes
  With sudden tears . . . that twilight skies
Lie like a bruise upon my heart . . .
  That music stretches me apart.

I do not know why such things are . . .
  I only know a lonely star
Is like a song dropt in the night,
  For just my ears alone . . . delight
Is mine when harvest moon dips low
  To kiss a stunted pine and oh . . .
I do not know the reason why. . . .

—The Republican-Boomer

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE

CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business managemen of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

SELECTION OF COUNTY OFFICERS

A very large proportion of our component county societies hold meetings during the month of October, at which the chief item of business will be the election of officers. From the organizational point of view these "annual" meetings are properly regarded as the most important events of the society's yearly calendar but, in spite of general recognition of that fact, it not infrequently happens that election results show that the meeting transpired without suitable preparation, without adequate forethought, without serious consideration of its main problem. Some of our societies provide for definite appointment of a nominating committee whose business it shall be to select and propose candidates for each office; it is an excellent plan and might well be universally adopted. In some districts, however, the society members congregate at an appointed time and place, indulge in desultory conversation, before or after presentation of a scientific program, and then someone in a complimentary mood proposes Jones for President, Smith for Secretary, Anybody for Reporter—and election of this group is unanimously concurred in merely because everybody would avoid hurting the feelings of any candidate so nominated. Such procedure cannot be too strongly condemned, since it is not for the best interests of the local society nor of the profession; it is even a doubtful compliment to the officers chosen.

It should go without saying that organizational work will proceed most satisfactorily where all members are interested and take an active part in the work, and where every member is competent to fill any office, but that is a state of idealism rarely found. Some men are peculiarly gifted or fitted for leadership; some few are perhaps born with those talents that qualify one for a secretaryship; an even smaller percentage may be found to possess reportorial ability. On the other hand, there is no reason to suppose that every man is inherently possessed of such qualifications for special office, and the ablest physician, the most renowned surgeon, or most eminent scientist may be utterly lacking in those essential elements that constitute leadership or fit one for the office of secretary or reporter. The object of each society should be, at each annual election, to select for office those members best equipped or adapted to render satisfactory service to the organization. It may be considered excusable to bestow the presidency as a mark of honor or a tribute of respect; occasionally this may be appropriate, but it should not become in any society the established custom. When it comes to electing a secretary and a reporter, whether those officers be combined or treated separately, it is of the highest importance that careful attention be given to the special fitness of the man for the job. It has been repeatedly urged that the success of any county society depends in the main upon the ability, the en-

ergy, and the whole-hearted working interest of these officers.

The state society has provided for a special annual meeting of the secretaries and reporters of component societies, with a view to encouraging a deeper interest in the work of these officials, a more thorough study of the problems confronting them in their respective localities, a comparison of experiences, and possible development of more perfect harmony and closer approach to unanimity of action upon public questions. But the state society cannot enforce attendance upon these meetings and one of the most pressing needs of the moment is that county societies shall elect secretaries and reporters who give promise, not only of the ability referred to, but of sufficient interest in their work to impel them to participate in these conferences. The secretary who has not such an impelling interest in his work fails to meet the requirements of his office and proves himself a drag upon the whole organization, local, state and national, because he leaves his basic group with impaired representation in the higher bodies and without that knowledge to which his fellow county members are entitled regarding the transactions of these bodies. The incompetent reporter, likewise, fails to keep the state organization informed as to local conditions and, if absent from the conferences, deprives his county society of proper representation and proper acquaintence with the general proceedings.

In the main, our Jersey county societies have good secretaries and efficient reporters; we have made that statement repeatedly. But, a chain is only as strong as its weakest link, and we have a few local chapters that are lamentably weak and that do not show a reasonable regard for correction of their weakness; and that tends to weaken the state and national machinery. With the many and varied questions of public character that bear today upon the profession it is of the utmost importance that each component society shall select its ablest members to fill the important offices, and that it shall urge such chosen members to fulfill their assumed obligations.

Let us all take earnest thought of this matter and endeavor to secure the election of capable, vitally interested and willing servitors.

GUINEA PIGS

By Arthur Guiterman

In the lee of the laboratory wall,
  Where they get their daily rations,
I heard the guinea pigs, great and small,
  Comparing inoculations.

Said Guinea Pig One, as pert and vain
  As a girl in hat from Paris:
"Your pardon, friends, if I seem insane,
  But I'm full of B. Vulgaris!"

Said Guinea Pig Two: "You may shortly see
  A paper with me for a basis,
As the living and breathing epitome
  Of virulent B. Anthracis!"

Said Guinea Pig Three: "A mammoth debt
  That science of medicine owes us!
Why, look at me and the way I get
  With doses of B. Typhosus!"

Then Guinea Pigs both of lean effect
  And Guinea Pigs short and stocky
Agreed, "We are all of the high elect,
  For we're primed with Streptococci!"

—Literary Digest

In Memoriam

BEGGS, Dr. William F., eye, ear and nose specialist in Newark for 31 years, died September 24, at his home, 289 Ridgewood Avenue, Glen Ridge, after an illness of a week.

Dr. Beggs was stricken with a heart attack while on the golf links about 2 years ago, and for several weeks his recovery was doubtful. More than a year ago, however, he was able to resume his practice.

Dr. Beggs was born in Petaluma, California, 64 years ago. Most of his earlier life was spent in Paterson but he had also resided in Roseville and East Orange before settling in Glen Ridge, where he had lived for the last 25 years.

He was graduated from the Hahnemann College of Medicine in Philadelphia in 1893, and from the New York Ophthalmic Hospital in 1898.

Dr. Beggs was a member of the American Academy of Ophthalmology and Otolaryngology, the New Jersey Chiron Club, the Association of Surgeons, the Essex County Medical Society, the American Institute of Homeopathy; he also served on the special staff of the Essex County Homeopathic Hospital for many years. For some time he had been a member of the Glen Ridge Country Club and belonged to the Glen Ridge Congregational Church.

Dr. Beggs leaves a wife and 3 sons, Alan of Montclair, Eugene of Glen Ridge and Morrison of New York; also a brother, Frederick Beggs of Paterson.

FISCHER, Dr. William C., of 731 Mt. Prospect Avenue, died September 24, at the Presbyterian Hospital, Newark, after an illness of several weeks. He was 53 years old. A graduate of the University of Maryland Medical School, he went in 1907 to Spokane, Washington. In 1909 he moved to the Vailsburgh section of Newark and subsequently served as a district physician of the city, medical examiner in the Oranges for the Metropolitan Life Insurance Company, and attending physician at the Velodrome. About 1913 he established his practice in the Forest Hill section.

Dr. Fischer was a member of the Essex County Medical Society, Newark Lodge No. 7 of Free and Accepted Masons, North End Lodge 227 of Odd Fellows, Salaam Temple, and attending physician at Newark Memorial and City Hospitals.

Surviving him are his wife and two sons, William Carlton, eleven, and Richard Gordon, six.

Resolutions adopted by the Staff of the Dover General Hospital on the death of Dr. Frederick W. Flagge:

Dr. Frederick W. Flagge has dropped out of humanity's procession. Since the founding of the hospital never was so great a loss sustained.

The Medical Staff, of which Dr. Flagge was Secretary, feel very keenly that they must bow to the inevitable; that these feeble words of tribute to him are very inadequate to express the feelings of the members of the Staff.

Dr. Flagge was the Nestor of Medicine in this part of the county, serving humanity for nearly fifty out of seventy-two years, with a dignity and honor that could not be surpassed.

He was as sincere as he was tireless—charitable, and kind, all his life. A man of opinions, who dared to differ from you if he thought you were wrong, but always choice in expression.

Obituaries have been written, but you must have known Dr. Flagge to have appreciated his true value as a man. Quoting the words of one of the members of the Staff, "The whitest man I ever knew in the profession."

Let us say, as would the Doctor, with George Eliot, "O may I join the choir invisible of those immortal dead who live again in minds made better by their presence; so to live is Heaven."

Medical Ethics

THE ETHICS OF FEAR

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, New Jersey

"When people take the responsibility for their own moral decisions on their own shoulders they will begin to be moral. Theology, masquerading as divinely revealed religion, has forbidden them that right long enough; and it has produced, quite without anybody intending it, a monstrous amount of ethical impotence, stupid conduct, cruelty, fear and asinine blundering on the part of human beings who would have done well enough if they had been taught to follow that inner craving for what is just, right and beautiful which is the common heritage of all of us."

Whether or not one subscribes to every word of the above quotation, the writer chiefly wishes to emphasize the fact that *fear* can produce a monstrous amount of stupid blundering and ethical impotence. We may not acknowledge to ourselves the existence of fear even when it exists.

We live in a conventional world, and if we do not observe the conventions we must have unusual qualities if our path is not to be difficult. We even are afraid to wear our straw hats before a certain date in the Spring. But if the subject were limited to silly conventions, it would be idle even to discuss it. There is a graver and more important bearing of the question not only to ourselves but to all our fellowmen.

Naturally the impression prevails that if one could regulate one's actions from a strictly personal point of view, entirely regardless of others, one's way would be easier because one would not be hampered by conventions or restrictions. But would we then not become absolutely self-centered? The lesson of all creation is that the welfare of the individual is secondary to that of the whole. The individual dies but the species lives. This truth is not limited to the human family. But it is the human family that is under discussion.

That the existence of fear has an inhibitory force few will deny. Fear may even masquerade as the "bump of caution", and we be saved from various contretemps and even from disaster. One fears to engage in high speculation; we hold back from aviation, from infringement of the moral law, from performing a dangerous surgical operation, and from a practice of those common conventions that Society has erected for its own self-preservation. In this sense fear may act as our guardian angel and be a benefaction. It is customary to speak of the fear of God, the fear of the devil, and the fear of hell fire. Would it not be better, however, to speak of the love of God, the hatred of the devil and the absurdity of hell fire?

Physicians know only too well how much fear enters into the problems of their daily rounds, inasmuch as a patient's fears enter into the problems besetting the invalided mind of the body invalid. A body ill is a body abnormal, the mind depending upon the perfect functioning of the physical is readily disfunctioned when a material physical part of our vital existence is out of gear. Fear cometh in the night, but joy cometh in the morning—is no idle figment of speech, and it is because our physical barometer is at a low pressure; our minds are beset with untold and nameless prohibitory fears. Doctors who are conscientious and sensitive in their work have often gone to bed thinking a loved and valuable patient will surely die. But what a difference in the morning! There is a ready and even physiologic explanation for all of this. A tired, overwrought mind is not functioning in a sane and normal manner. Hobgoblins—blue, yellow and black—are hovering in the offing; their presence distorts the present and excruciates the future. The ethics of the case, using the term in the strict sense of "the science of moral conduct", is to keep our physical well being functioning at a high state of efficiency. We should not do those thousand and one things that deplete our vital reserve. If this be kept at 100 per cent, our fears would not wreck us for they would be good fears—personal and omnibus—fears that should rightly be termed *cautious;* and not fears that inhibit actions that are just, right, and courageous.

Physicians are aware that there is a popular system of healing chiefly based on the doctrine of the elimination of fear. That this has been enabled to flourish like the proverbial green bay tree is a powerful argument that many are more fearing than ill; but it is *reductio in absurdum* when statements are made that "without fear there is no sickness or no pain"; for no cult can expect to blanket pain or the whole wide range of human ills.

One would naturally infer that it is a weak mentality that would make the fear of death a kill-joy for the living. But how many doctors have come up against such cases! In the same manner, life has been spoiled for the foolish virgins (of both sexes) who think that insanity and the madhouse will be their doom.

Physicians are constantly being consulted by married, and sometimes unmarried people, who have the fear that they will for some reason or other be unable to procreate. They are unwilling to await the natural termination of events, but spend many long, miserable hours and nights in distraction and useless uncertainty. The writer even remembers a brilliant, healthy young man, otherwise in normal mental condition, who actually broke his engagement to a beautiful and wealthy girl for no other reason. What a wonderful morsel he would have been for the pluriglandular sharks!

The fear of old age is absolutely ridiculous, for, if we continue to live, old age and even death itself are more inevitable than taxes, and to fear what is as natural as birth itself puts us in the category of fearing the inevitable. One might with just as much sense say that they fear the setting of the sun. It is more absurd to fear something that can never happen (but how many do this?). And if it is silly to fear the impossible, it is perfect waste of our nerve force to fear something that is inevitable and that with or without our volition will surely one day occur. To many even death is a blessing.

But the fear of pain is a more important topic because of a doctor's relations to his patients. It is natural to fear pain. Physicians even do this themselves. Pain *is* a great evil! It is the happy privilege of the doctor to assuage it.

This subject, together with the fear of an operation has been most thoroughly treated by Dr. George W. Crile, who has been of such great and lasting help to the profession in the demonstration of how the fear of pain and the fear of operative procedures can be avoided with the great saving of human life.

It may actually do some good to fear lightning, fire, reckless driving, dissipation, burglary, and many things of this nature, because our fear tells us how to avoid them.

Fear is a depressant; it lowers the vitality, especially the blood pressure and the animal spirits. The class of neurasthenics and the insane with mental depression are often the hardest nuts (no pun intended) we have to crack.

Fear enters into our political, even our religious world, more than we care to admit. Many a young, able, honest and aspiring politician has entered the arena resolved to guide his course without fear or favor. He is intelligent, independent, activated by the highest desire to help his party and serve his constituents. His ideals are high and his qualifications and his enthusiasm for a public career are acknowledged by all who know him. When he runs for office, he is elected. At first even the opposition papers, while giving him sage editorial advice, admit his high qualifications, while his own party soon gives him unusual advancement. But before long there occurs a slow process of moral disintegration, so gradual that it is not sensed even by the individual himself. Then comes the hour when a bill which should be nonpartisan is before the house. All the papers are sure they can count on his vote to be in the interests of City versus the Corporation wishing a valuable franchise for a song. While his vote is a surprise and a disappointment to his friends, varied and only half disguised allusions are made which are not entirely complimentary to his independence of certain large interests. In other words, he is *afraid* to be independent. This is only one example of many thousands that could be narrated by the men themselves who are in the political mill. Get thou elected to Congress and see!

When we come to the clergy, we are naturally sensitive and perhaps on debatable ground. Few will care to accuse our great moral examples of fear. But Church politics enter into their duties and worries if not into their ritual. How many of our clergy would like to be independent of nameless inhibitions? Perhaps the statement that a minister is *afraid* to go against certain modern or ancient conventions would be resented. But one can say (almost in smug satisfaction), it is not *wise* to take a certain opposition course; although one might admit that it would be the only courageous one to pursue. Here, moreover, powerful social or financial interests must be considered. These are really more than bread and butter. They mean survival. Christ was independent, but he was crucified. But ask the Bishop of your diocese how many of his clergy are without fear!

To be honest, the physician has many inhibitions through fear. Does he ever fear to tell the truth to his patient? Does he ever fear to take that much needed vacation? Does he ever fear to charge the suitable fee for that skillful operation? Does he ever fear to tell the patient he should be operated upon at once instead of waiting to see what the morrow will bring forth? Or, conversely, does he fear to refuse to operate on a case of doubtful expediency?

So we see that the "fear complex" is ever living with us. It is not restricted to the poor, sick, anemic, and the neurasthenic, but is bone of the bone and flesh of the flesh of all men, even of the most red-blooded variety.

Medical Economics

STATE MEDICINE: BOON OR BOGY?

G. W. Haigh, M.D.

The medical and surgical system of the United States Navy proposed as a model for a State or National service for all the people.

The time has come seriously to consider the institution of State medicine. By State medicine is meant, not a system retaining all the deficiencies of the individualistic competitive form of medical practice such as the panel system of Great Britain or the sickness societies of Germany, but an organization based upon the economic principle of the division of labor and designed to insure cooperation in supplying a public necessity; to wit, a complete, free, in time compulsory, health and accident service maintained by each commonwealth. It would necessarily embrace the present departments of public health and of industrial accidents. It would furnish for all who accepted its benefits the same service as that provided by the medical corps of the navy for its personnel.

Today, health is recognized as of prime importance. Scientific medicine can do so much to promote, preserve, and restore health and vigor; no one should be denied its full blessings. Yet, at a time when the right of every citizen to the possession of *optimum* health should be esteemed as inalienable as his right to the pursuit of happiness, under the prevalent expensive competitive form of medical practice many do not enjoy its greatest advantages. Even though more than a decade has elapsed since an eminent physician and sociologist writing in a lay periodical showed that the great middle class was not deriving commensurate benefits from modern medicine, nothing significant has been done to remedy this flagrant social defect. And why? Simply because nothing will avail but a radical change from private individualistic practice to a government coöperative health and accident service.

To many, such a proposition smacks of socialism. But let them reflect that after the need for public education was generally acknowledged, the idea of offering to all children free instruction was no more socialistic. Whereas education concerns only a part of the people only a part of their lives, health concerns all the people all their lives. Since, moreover, there is no constant or exact demarcation between preventive medicine and curative medicine or between private health and public health, private health becomes a matter of public moment as soon as private agencies are found to be wanting. Since the medical profession has signally failed to furnish proper service at a reasonable cost, it behooves the people to provide for themselves the needed organization. As a matter of fact they have already established government departments for the care of patients with mental diseases, tuberculosis, and in Massachusetts, cancer. To forestall the successive founding of independent state hospitals for chronic rheumatism, heart and kidney diseases, and diabetes, however, it is positively imperative that they forthwith contrive a free, unified and coördinated health service.

Such a public service obviously would demand, as our public schools do, that its beneficiaries forego their choice of any individual physician and accept the offices of the one or more medical men designated to serve them. This would not entail any hardship but would be a distinct advantage in this day of specialization, when most persons have to be directed to the source of the best treatment without the delay that so often results from their having exercised this privilege. Surely the doctor is far better able to judge where the most prompt diagnosis and the most effective treatment can be obtained than are the patients themselves, who now wander from one rival physician to another without relief till at length they reach the hospital beyond cure. Already the physician or surgeon engaged in hospital practice is losing his identity; for whereas formerly the common inquiry was, "What doctor did you have?" today it is, "To what hospital did you go?" Formerly, persons might be served by their family physicians from birth to death; nowadays they are brought into the world by obstetricians, attended by pediatricians, operated upon by rhinologists, examined by school physicians, treated for broken bones by orthopedists, operated upon for appendicitis by general surgeons, examined by factory physicians; subsequently, they may consult cardiologists and specialists in diabetes; in the meantime they have without doubt required the services of the roentgenologists, dermatologists, and dentists. Is it not quite evident that in such a jumble of divided responsibilities, in order to take the place of the vanishing family physician with his intimate knowledge of the patient and the patient's family, there is urgent need of some directing and correlating

agent and complete permanent health records?

Since the specialties are bound to grow and multiply with the progress of civilization, which begets new knowledge and new ways of applying such knowledge, the sooner they are coördinated, the better and the easier. Only by organization can they be properly joined for efficient coöperation. For some time cooperative medicine has been practiced in hospitals, especially among the charity and the wealthy patients, when the expense of such has not had to be taken into account. The superiority of such coöperative practice over the individualistic form was implied in the statement of the previously mentioned famous clinician and teacher, that the large middle class who did not or could not avail themselves of such team work in the practice of scientific medicine were not receiving the greatest possible help. Since such service is too expensive for the working people who are accustomed to pay their way, it can be furnished only by a government medical corps.

The ability of such a corps to maintain the present high standard and steady progress of scientific medicine, however, is doubted and even denied by many conservative doctors and laymen. They assume that individual competition is requisite as a goad and that initiative is repressed by orderly coöperation. Now in any profession to which only the learned should belong an opportunity to work intelligently, itself, suffices as a stimulus to effort. A decent living is sufficient material compensation. For several decades, in fact, most contributions to the advancement of medicine have emanated from clinics, laboratories, or institutes manned by salaried personnel working together. Even members of the medical profession financially independent have shown initiative and energy in the pursuit of such scientific research or in the establishment of renowned clinics. Since 1916, furthermore, the high professional standing of the medical offices of the United States Navy as well as those of the Army and Public Health Service, has been acknowledged by the American Medical Association to be above that of civilian physicians in general, because the former are admitted to fellowship automatically, by virtue of their commissions, whereas the latter are eligible only by meeting certain conditions. Since only representative graduates in medicine enter these federal services, the organizations themselves must foster a grade of practice higher than that of civilian doctors, who are embarrassed by monetary considerations and distractions in their struggle for a living. Moreover, it was to be observed by those physicians serving in the navy for the duration of the World War that the naval personnel had the utmost confidence in its medical officers. Some of those who were financially able and physically free to consult eminent civilian doctors gladly availed themselves of the services of their medical officers.

Another objection to government medicine is its alleged prohibitive expense. Just reflect upon the extravagance of the present incoherent multifarious health agencies in Massachusetts. First, there are the state organizations, including the Commission of Public Health with its manifold divisions, with field and hospital forces of mental diseases, tuberculosis, communicable diseases, cancer, bacteriologic and serologic laboratories; the Department of Public Welfare with its hospitals; and the Industrial Accident Board with its medical problems. Second, the federal health services, public health, child welfare and maternity and also various private national societies and institutes of hygiene and medicine with state branches. Third, the local board of health with its hospitals for contagious diseases, and the school health department, ambulance service, diverse hospitals, municipal as well as private, charitable and industrial, general and special, different health centers, district nursing societies, Red Cross workers, private physicians and nurses, pharmacists, masseurs, cultists, mediums, quacks, abortionists, herbalists, fakirs, and dispensers of patent medicines. To what the total exenditures of these multitudinous factors amount transcends the imagination. They are as prodigious as prodigal in comparison to the probable cost of a system arranging and uniting the many diverse worthy agents and eliminating competition in a public necessity more important than all the public utilities. The expense of the latter would prove to be as much less than that of the former, as its efficiency would be greater.

As the value of hygiene comes to be better appreciated and as the progress of civilization renders mankind economically more and more interdependent, the functions of the civilian physician become identical with those of the naval medical officer, which are primarily to keep the personnel fit for duty, and secondarily to restore them to fitness for duty. Without an excellent organization the medical corps of the navy and the army during the World War would surely have broken down under the strain of the sudden and vast recruiting of their respective numbers. That they met that supreme test nobly, no one would dispute. Then why can not that or-

ganization be applied to civilian practice? To serve effectually the civilian population relatively immobile and constant, in contrast to the mobile and variable naval and military forces, would be a far less difficult task. Actually, it would be found to possess such reserve capacity as readily to cope with the human disasters caused by storms, floods, accidents, or conflagrations.

In the application of such an organization as the Bureau of Medicine and Surgery of the Navy to the public in general there arise 3 questions of interest: the method, the cost, and the efficacy. Of these the first two, being rather technical, will not be discussed in as much detail as the last. Moreover, since a way is always found for bringing about a needed reformation, the first 2 are of less immediate importance than the last.

In the adaptation of this government medical service to the public the unit would be the district hospital with such different departments as eye, ear, nose and throat, orthopedic, obstetric, pediatric, neurologic, mental, convalescent, and incurable. It would vary in size according to the populousness of its territory. In the largest cities the different departments might be represented by institutions separate from one another but closely affiliated with the general hospital, which would serve as a clearing house for patients and as headquarters for the personnel and the health records. Besides, there would be auxiliary health and accident stations in factories and shops where enough people were employed, and also in rural communities too remote to be served directly by the central hospital staff. Temporary relief stations might be set up for celebrations, exhibitions, athletic contests, and entertainments when people collected in large enough crowds. Mobile field companies might be dispatched for service among communities striken with epidemics or catastrophes. Medical officers on the hospital staff would minister to those unable to visit the out-patient clinics, whether or not in need of hospital treatment. Eventually, however, all patients incapacitated by curable diseases or remediable injuries would be confined to the appropriate hospitals.

Over these medical groups would be a central professional bureau like that of the navy. This would be manned by medical officers and hospital corpsmen under the direction of a surgeon-general, who alone would be appointed by any layman. In order to eliminate politics from the operation of this service he would be selected by the Governor only from those medical officers of the one or two highest ranks. This State Health Department would encompass the existing Commission of Public Health and the medical duties of the Industrial Accident Board and the Department of Public Welfare.

The personnel would comprise 3 bodies: Medical corps, composed of doctors of medicine; hospital corps, of nurses and technicians; and auxiliary corps, of non-professional employees under the civil service. The professional members would have a pay schedule similar to but slightly lower than that of the naval medical officers, who require somewhat more money than civilians because of having to perform duty away from their families. The salary with the usual allowances for living quarters would be determined by 2 factors, the length of service and the rank. Promotion would be governed up to a certain grade by seniority, beyond that by examination. Bonuses would be given to those performing their duties in an exceptionally meritorious manner or making notable contributions to the progress of medicine. There would be provided, also, insurance against disability on account of health or accident and a pension for retirement.

The funds for the maintenance of state medicine would be obtained from about the same sources as those for the existing medical agencies. People with taxable incomes might be assessed a small percentage of their incomes for this purpose. Those who accepted the free service would be directly compensated; those who could afford not to accept it would be indirectly compensated by not being obliged to contribute to any medical charities. Industry would be taxed about what the workmen's compensation costs, less 2 portions, the one expended upon the payments for disability of injured employees and the other allowed as a profit for the insurance companies. If the government or the employers, themselves, handled the insurance against lost wages of employees, the saving resulting would add to the funds. Private life, health, and accident insurance companies would be charged for medical reports furnished them for the issuance of policies and for the payment of claims. Private medical charities might assign their endowments and their plants to the Government at nominal prices. Any payments for temporary or permanent disability arising out of illness or injury being extraneous to this medical proposition, would be made by a separate insurance department or by private companies.

How well State medicine patterned upon the available precedent offered by the Bureau

of Medicine and Surgery of the Navy would function will now be shown. It would supply to any and all a free, universal medical service, which might be just as compulsory as our educational system, since no patient should be permitted to lose his life or health through ignorance or fanaticism. Satisfactory substitutes would have to be recognized, since the wealthy might continue indefinitely to employ private physicians and nurses. They would be compelled, though, to comply with the accepted standards, as are our private schools. Those individuals not sufficiently educated and morally fit to administer to the sick and the wounded, it would largely eradicate, directly by exposing them with impartiality and with no personal profit to the profession itself, and indirectly by providing an organization which would assure harmonious coöperation in proffering to the public the full blessings of up-to-date medicine.

State medicine, furthermore, would remove for many the present inhuman impediment to prompt diagnosis and effectual treatment; namely, the expensiveness of competitive medicine, which has instigated the formation of a private commission of nationally prominent persons to investigate its causes. In many instances, nowadays, necessary operations upon children are postponed for purely financial reasons. Too many tired housewives and harassed fathers must forego the cure of annoying impairments because of the forbidding cost. In some cities the member of the middle class with self reliance pays 10 times as large a fee as he ought because 9 others without self respect pay nothing. People with precarious equities in their homes are often inequitably compelled to pay for services rendered to their families, whereas those with intangible property escape payment.

It would assume entire responsibility for returning patients to work as expeditiously and as impartially as possible. The conscientious would be discouraged from resuming their occupations too soon, the dishonest would be discouraged from prolonging their convalescence unduly. It would insure patients receiving an examination at the end as well as at the outset of any illness or injury severe enough to keep them from their usual duties. The final examination might disclose defects that would indicate a change of habits or occupations. Nowadays the unintelligent and the parsimonious are willing to spend money upon ineffective, even harmful therapy, but unwilling to pay for a thorough examination uncovering the root of the trouble. Free medicine, alone, would not only make available to every patient all the resources in knowledge and skill of the whole system, but would also supply the means by which they would become most accessible. It would, of course, guarantee physical examinations at whatever periods were deemed desirable for those of different ages and of various occupational hazards.

This system would correct the incongruous and unreasonable positions of doctors in the present chaotic condition of medical practice. Recent graduates would become members of the medical corps as soon as they were accepted as interns in a general hospital. As paid officers in the service, they would take more personal interest in their patients and more pride in the standard of their work; whereas now they are too prone to regard their patients' afflictions as impersonal medical problems and are too anxious to finish their appointments which mark the final stage in a too expensive and extended preparation for their careers as private practitioners. Besides, they could be supervised more closely and disciplined more efficaciously. Instead of serving 1-2 years during which they give less than they receive, they would remain in the status of interns with pay for about 5 years, being worthy of their hire.

The aspirants for specialties would be trained only after thorough experience in general medicine. When fully trained they would be granted suitable degrees and would not, as are so many immature and untrained specialists of today, be forced to continue to devote a part of their time to general practice in order to eke out a scant living. Being interested only in the financial aspect of general practice, these latter are not infrequently guilty of haste and carelessness, and also of abusing the confidence even of long trusting patients.

The older physicians in general would not be constrained to do things in which they had ceased to be interested and which they had done just as well earlier in their careers. Under individualistic medicine doctors are frequently compelled to attend to minor cases of illness or injury which do not warrant their particular attention. After any one as learned as a doctor of medicine has lanced 100 or 200 boils or repaired an equal number of scalp wounds, he can muster up little enthusiasm for them. He is apt to be rather slack in his

technic. And no wonder! At this stage in our civilization the metropolitan bank president would hardly be expected to operate the comptometer or to count out the pay roll for a customer's factory. The medical officers of higher ranks would also be relieved of emergency and night work so as better to perform their duties of supervision, consultation, teaching, and administration. To undertake delicate operations, in justice to their patients, surgeons should not allow their judgment and skill to be impaired by loss of sleep.

There are several other glaring evils of competitive medicine that would be abolished by systematic coöperation. The necessity for individual physicians to render personal service to their patients at all times of the day and night too often induces weariness and brain fag. Under competitive practice, however tired they may be, they are impelled to cater to their patients in order to retain their patients' good will. However fatigued, they must always be ready to solve the most baffling problems in diagnosis demanding keen perception and clear reasoning, or to undertake the most difficult operations, requiring calm courage and manual dexterity. The effects of fatigue can be demonstrated in the physiologic laboratory. The direful results of fatigue upon the part of the overtaxed popular doctor have been brought home to many families bereft of dear ones or burdened with invalids.

Haste with its baneful consequences would also be discouraged by collective practice employing the economic principle of the division of labor. Dispatch inevitably gives way to hurry where, on account of the gregarious nature of man, the sick and the hurt flock in increasing numbers to successful practitioners who dare not refuse their services to any for fear of offending them, or who desire not to miss any fees. Overworked practitioners have been known to dispose of their patients at the rate of 1 every 6 minutes; and yet the finger nail is more intricate than the most complicated machine. Hurry results, too, when the idolized busy physician, though jeopardizing lives and limbs, is constrained to make hay while the sun shines. For, competitory practice is so exacting physically, as well as mentally, that the earning power of successful physicians begins to decline at an age earlier than that of other professional men. It is in fact so strenuous that the mortality of the medical profession recruited from a picked class of persons vigorous enough to devote nearly half their lives to study and training is greater than that of the general population, including steeple jacks and aviators. The family physician conducts a one-man business entailing continuous hours of duty with multifarious responsibilities as counselor not only in medicine, but often in law and religion, as bookkeeper and investor, chauffeur and mechanic, teacher and head of a family. Little wonder that he blunders tragically.

Carelessness upon which individualistic practice exercises no direct check would be curbed by state medicine. Today even reputable doctors make fatal errors through the negligence of examining their older, more familiar patients incompletely, because of assuming too much knowledge about them; for the human body is so complex that symptoms arising from an affection of one part may be referred to another part. More than one observant intern have remarked about the superiority of the treatment of the ward charity patients who are put through the routine hospital examinations, over that of the private room pay patients whose doctors assume that their familiarity with them renders the cost of such a thorough study unnecessary.

Carelessness is rife among a less reputable class of busy physicians who practice the art of medicine, the easier phase, in contrast to the science of medicine, the harder phase. They have no time or need to keep up to date, because their very success is assured by the foibles of the benighted and the unintelligent. Indifferent to the cause of diseases, they dispense a separate pill for each of the complaints, however numerous. To serve is not their motto, but to exploit. Other doctors equally negligent are those loath to relinquish the care of patients to colleagues better qualified to treat them. Since it has been estimated by experienced drug salesmen calling upon the members of the medical profession that 80% of the medical work is done by 20% of the doctors, it is manifest that carelessness as well as fatigue and haste must do incalculable harm, and that there should be adopted a coöperative system with its guides and checks upon its members.

A need that private agencies have not supplied for the public, the public must provide for itself. Since the Bureau of Medicine and Surgery of the United States Navy, a truly efficacious organization, offers a practical model for the needed medical reformation, it is surely time to dispel the body of state medicine and to found this proposed system of Government Medicine.

Esthetics

THE DELUSION OF BEING FREE

(Reprinted from The Kalends, Williams and Wilkins Co.)

Should any group of people be asked what they would do if each one of the group should inherit a fortune, no doubt the answers of most of them would be that they would travel. Further questioning would undoubtedly develop the fact that most of their ideas of travel would be vague and hazy. They would like to travel—where? Anywhere, it would seem, just to get away from the humdrum of existence and be "free."

Well, what is freedom? How many of us know when we do or when we do not have it? Seemingly, if superficial definitions are accepted, freedom is a something which one must have before anything worth while can be accomplished. "If I were only free, what might I not do?" Which is tommyrot! For the truth of the matter is that the greatest of human achievements have been accomplished by those fettered with mental and physical handicaps and adverse circumstances.

Carlyle was afflicted with domestic discord and his own miserable disposition. Beethoven composed the greatest of his symphonies when stone-deaf. Oscar Wilde wrote the most powerful of his poems, "The Ballad of Reading Gaol", while behind prison bars. Robert Louis Stevenson did his best work when dying with tuberculosis. Edison deaf, Milton blind, Burns uneducated, Franklin self-taught—all intellectual giants it is true, but yet not "free" in the sense that so many of us whine about. And so we do but delude ourselves when idly dreaming of what we could or would do "if only we were free".

Freedom, if anything, is a state of mind—a mind that keeps itself free from discontent, that will not allow itself to be defeated by untoward circumstances. Is it not true that when we desire most to "get away" from everything and everyone, we are but fatuously endeavoring to get away from ourselves?—and that is impossible. For whether our mental flight ascends to the heights of heaven or descends to the depths of hell, we cannot escape ourselves. The inescapable truth remains that when we realize we are not all that we hoped to be, when we feel that we are not enjoying the pleasures that we believe should be ours, it is not because we have not been "free" to do so. It is because we have been false to our ideals, unworthy of our aspirations, and inferior to our dreams.

Collateral Medical Reading

CONSECRATIO MEDICI

By Dr. Harvey Cushing

(Reviewed by the Editor)

Those of you who have read Cushing's masterful biography of Sir William Osler, or who are familiar only with his contributions to scientific literature, will not need to be told that anything emanating from the pen of this distinguished surgeon is worthy of reading, and those of you who are not familiar with his writings will do well to refer to those publications and give yourself a glorious treat. The "Life of Sir William Osler" should be read by every person interested in the art or science of medicine; it affords, indeed, most interesting reading for intelligent beings whether interested in medicine or not. In "Consecratio Medici", Cushing has given us a collection of essays, some of them biographic, some historic, some related to the professional and public aspects of medical problems of the present day.

There are 14 essays in this collection, and one cannot help being impressed by the breadth of Cushing's interests outside the field of his daily labor. As stated by a reviewer in a recent issue of "The Saturday Literary Review": "These papers cover a period of 20 years of literary effort snatched from the busy days and nights of a surgeon's life. * * * He skips from a clever skit about Garth, the Kit-Kat poet, to a splendid tribute to his life-long friend, Osler, the physician. Other papers deal with a brilliant exposition of the personality of a modern hospital, the Ether Day Address at the Massachusetts General Hospital in 1921, showing how the staff and everyone connected with a hospital may give *personality* to the institution; another, 'The Doctor and His Books', expands Osler's dictum—to study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all."

There are interesting chapters concerning war experiences in France, teaching experiences in Western Reserve University, Johns Hopkins, and Harvard, and one delightful chapter paying tribute to Louisa Parsons and her nursing work. To the greater number of members of our profession, the two essays entitled "Realignments in Greater Medicine" and "The Physician and the Surgeon" will, I suspect, seem the most important sections of this book, for in them Cushing discusses vital

problems confronting the 2 chief subdivisions of our art. A review, or an abstract, of even the last mentioned essays in the space at our command would do justice to neither the author nor the subject considered; so, we commend the book to you for personal reading, guaranteeing that you will secure "value received" for your expenditure in one or other of the essays referred to.

To give some indication of the character of the medical essays, we may say that Cushing has paid great attention to those happenings which have tended to separate surgery from medicine, and that he deplores this day's tendency to widen that gulf. Like his adored master, Osler, Cushing is one of those possessed of learning and ability sufficient to permit him to encompass the whole field of medicine. It is natural, therefore, that his ideal should be a medical practitioner capable of doing his own surgery. He looks upon surgery, apparently, as an offshoot from medicine for the purpose of exploration and considers that discoveries made should be reported back for adoption by the main body of medical practitioners; looking upon the many surgical specialties as having but one reason for existence, namely, that of performing research work in special departments. For instance, having described the development of urologic surgery and the mass of valuable knowledge thus contributed to medicine, he says: "But the error must not be made of permitting surgical specialists to enter this or any other restrictive field of operative endeavor without a broad preliminary training in medicine and general surgery. This mistaken course, critics say, has been pursued in some of the established surgical specialties. That they may lose sight of the patient in their expert knowledge of the disorders of a certain portion of his body is a natural tendency of those who particularize in their work at too early a period. This undesirable attitude can be forestalled only by a long apprenticeship in general medicine and surgery before specialization is undertaken, and by subsequent contact and free exchange of ideas with those who continue in more general work. Indeed, the existence of the operating specialist, as contrasted with the general surgeon, is justified only if the former takes advantage of his opportunities to contribute to the knowledge of the disorders he specially treats. When progress ceases to be made, through the intensive studies which the smaller field of work permits, there is every reason why the vagrant specialty should be called back under the wing of its parent, general surgery, from whom under no circumstances should it ever be permitted to wander too far."

Again, in a portion of his presidential address to the American College of Surgeons, he says: "It seems to me that it would not be a bad idea if in our tests of eligibility for fellowship in this College—tests which not only are those of moral and professional character but of operative experience and skill—we should demand something more than the mere report upon a fixed number of major operations successfully performed, but should require, as well, information as to whether the diagnoses in these cases were the result of the candidate's own personal observation, or whether they were made for him by another.

"We have seen that the present trends affecting the physician and surgeon are, on the one hand, toward preventive medicine and good nursing, which lessen the importance of therapeutics; on the other, in surgery, an ever-increasing subdivision and specialization which tend to magnify the importance of mere handicraft. Prevention, it is true, can also be applied in surgery. Many industrial accidents can be prevented; the rule of safety first can be followed; there would be no more gunshot wounds if firearms and war were abolished; if we can finally stamp out tuberculosis and eliminate cancer, there will be far less for the surgeon to do. If women did not have children, if people did not drink, if we could only keep the policeman off his feet, the housemaid off her knees, the miner off his elbows, the aviator out of the air, the boys away from football; if all children in goiterous districts were given a little iodin, there would be less need for the surgeon. But we do not yet live in the Isle of Utopia, and however much the need of the physician may be lessened through the agency of preventive medicine, by eliminating disease, as typhoid has been largely eliminated, and yellow fever, and as malaria can and will be, and many nutritional disorders, and perhaps goiter, the surgeon will continue to be needed, and I cannot see but that he must become a better and better physician.

"When physicians acquire a more intimate knowledge of surgery, fewer people in need of operative procedures will be turned over to the surgeon too late, after delays caused by an inordinate number of unnecessary laboratory procedures. When surgeons are required to have a thorough grounding in general medicine before practicing their handicraft, fewer unnecessary operations will be done, and many

of the evils which exist in their professional relationship with physicians will be eliminated.

"All of this was embraced 13 centuries ago by Lanfranc's brief statement:

"'No one can be a good physician who has no idea of surgical operations, and a surgeon is nothing if ignorant of medicine. In a word, one must be familiar with both departments of medicine.'"

We have quoted the above not solely to illustrate the interesting character of Cushing's writing nor his views upon this particular question, but, in part, to direct your attention to the fact that this is one of the very important problems referred to in our report to the House of Delegates concerning legislation to regulate the practice of surgery; a problem that is going to require a great deal of thoughtful consideration during the next few years.

Case Report

MYELITIS FOLLOWING VARICELLA

N. B. Heller, M.D.

Varicella being considered a mild infection with all complications limited to the glabrous skin, we thought it justifiable to report this as a rather rare complication following "chicken pox".

H. J., a dentist, 34 years old, married, has 2 children. Father 78 years old, active. Mother 74 years old, was operated on for carcinoma of right breast in 1919; uneventful recovery; otherwise feels fair. There are 3 sisters and 2 brothers, all well. Personal history, negative, except for measles in early childhood.

November 27, patient developed varicella following similar infections in his 2 children. The eruption was quite extensive with a temperature of 101° to 103° for the first 3 days. He was kept in bed for 8 days. December 6, while up and about the house, he complained of slight difficulty in walking, and inability to empty his bladder. On examination it was found that the bladder reached to the umbilicus; he had to be catheterized.

Examination by Dr. Israel Strauss, of New York City, December 11, showed the following signs: right pupil almost immobile to light; abdominal reflexes absent; both knee jerks very much exaggerated; bilateral Babinski and ankle clonus; some paresis of both lower extremities; marked hyperesthesia over chest and back, from clavicle to lower border of the ribs, and hypasthesia in the sensory distribution below the second lumbar, especially marked in the distribution of the fourth and fifth sacral segments.

Patient was put on nonspecific protein therapy by being given intravenous injections of typhoid bacilli. Several reactions were obtained, and improvement, particularly in the innervation of the bladder, began after the second reaction. Progress was continuous so that when examined again, December 30, by Dr. Strauss the only neurologic signs persisting were active knee jerks, left greater than right; slight ankle clonus in the left foot, with a tendency to Babinski in the same foot, and also very slight weakness in that extremity. Almost full control of the bladder had been regained, patient stating merely that there is still a little difficulty in starting micturition. There were no remains of the sensory disturbances.

Different observers have reported cases where there was involvement of the central nervous system in different forms, while those reported in the literature as myelitis are quite rare. Winnicott and Gibbs report a case in a girl, 2 years old; as in our case, the symptoms were present in the legs, bladder, increased tendon reflexes, also difficulty in swallowing and articulation, which was not found in our case. R. E. Wilson and F. R. Ford report a case in a boy, 9 years old, with unsteady gait, increased tendon reflexes in the legs, also slight horizontal nystagmus and coarse choreiform movements of the finger, but there was no sphincter involvement. D. C. W. Smith reports a boy, 7 years old, with bladder and rectal involvement, weakness of legs and numbness in left arm. He could not feel a pin prick in the arms or legs. Wilson and Ford report another instance in a boy, 3 years old, with diminished sphincter control and weakness in the legs.

In all the cases reported the involvement of the nervous system followed a definite lapse of time. While encephalomyelitis following vaccinia and variola have been met with at different times by different observers, the number of cases reported following varicella is small and they all show a tendency to recovery.

REFERENCES

Winnicott & Gibbs, British Journal of Dis. of Children, 1926, 23, 107.

D. C. W. Smith, Am. Journal Dis. of Children, 1915, 10, 445.

R. E. Wilson, F. R. Ford, Bulletin Johns Hopkins Hosp., 1927, 40, 337.

Observations from the Lighthouse

CHRONIC CARDIAC DISEASES

A symposium on the various aspects of heart disease published in the New England Medical Journal of January 3, 1929, contains 2 short papers filled with very practical suggestions. The first, by Louis M. Spear, is a report of experience in treatment of chronic cardiac patients at one of the Boston hospitals, and from it we take the following paragraphs:

"The things that stand out, and which can be emphasized over and over again are:

(1) *Endocarditis must be kept quiet as long as there is evidence of cardiac irritability.*

When, on first sitting out of bed, there is a rapid rise in the pulse rate, which does not come down in a comparatively short time to what the rate was when the patient was lying in bed, we have considered that case not yet ready even to sit up.

(2) *Extremely interesting—a thing we all know—is the tendency to recurrence under the best conditions.*

These cases are kept in bed a long, long time. All exercise of any sort is carefully supervised. They are guarded against over tire. In spite of all these precautions, and the fact that there may have been a normal temperature for several weeks, we get recurrences with no apparent cause. This is one thing which I think ought to be emphasized particularly to medical students. There seems to be a feeling that after a patient has run a normal temperature for several weeks, his pulse has come down to a reasonably normal level, and he has perhaps been up and about within limits, that the difficulty is past. Our experience here has gone to show that this is not the case by any manner of means. The fact that extreme care must be used in the management of these cases is a thing which is particularly difficult to impress upon the family of the patient.

(3) *Necessity for long rest in the hospital for the majority of cases, such as we have here.*

This does not apply to private cases in families where everything can be done for the patient and where constant medical supervision can be had. Cases like those we see here certainly ought to be kept in the hospital for many weeks after they have been up and about the ward all day long with normal pulse and temperature.

(4) *Difficulty of control of cases that have been discharged to the Home Service.*

It is difficult to get patients to report back to the hospital regularly. It is very difficult to make the families understand the importance of keeping the patient quiet and regular in his life. As an illustration of this I may cite a case of a boy who was in the hospital 7.6 months. He had an active endocarditis when he came to us, with a heart showing much damage. It was very difficult to get him to report after his discharge, and I tried to follow him at his home in Allston. On one of my visits we did not find the boy in his home. His sister went to look for him, and when she returned said she had found him playing on the top of a freight car in the nearby freight yards. He was apparently doing this without any subjective difficulty. This boy was absolutely out of the control of his family. He returned later to the hospital, after being out a year or so, and died a straight cardiac death."

The second article, by Howard C. Raymond, deals with the problem of suitable occupations for adult males suffering the handicap of heart disease:

"Like all handicapped men, the man with cardiac trouble finds it difficult to secure suitable work. He finds his choice limited; he lacks self-confidence and feels the employers have a prejudice against handicapped men. To what extent does this vary in the case of the cardiac? It is my experience that the cardiac to a greater degree is uncertain of his limitations, of what may be injurious to him. I believe this same uncertainty exists in the minds of the placement workers. It is more or less true of disease handicaps in general as compared with certain definite results of an accident. If I know all the duties involved in a certain job, I can get a fairly clear and definite idea of whether a physically handicapped man can do the job, with a leg or arm amputated or incapacitated, but I never feel that I can get the same clear and definite idea with a man handicapped by disease, as in the case of a cardiac. I have not to the same degree the ability to put myself in the patient's place of understanding his "work tolerance" or ability to stand work.

The more or less familiar classifications adopted by the New York Heart Committee will prove useful as they are more generally used by the hospital and placement workers.

(1) Able to carry on habitual physical activity.

(2) Able to carry on with: (a) slightly diminished activity; (b) greatly diminished activity.

(3) Unequal to any physical activity; could possibly do office work or in sheltered workshop.

(4) Possible heart cases.

(5) Potential heart cases, predisposing history.

Although the doctor's recommendation is stated negatively, the idea in the worker's mind must be stated positively, that is, in terms of what the patient can do rather than what he cannot do. To this end there should be, to a greater degree than in other types of handicap, consultation between the placement worker and the hospital social service worker. From his own knowledge of cardiac conditions or from the interpretation of the hospital social service worker the placement worker must be able to reassure the employer regarding sudden death, which, in the popular mind, is a far more frequent danger than it is in fact.

Work which suggests itself as suitable for male cardiac cases where greatly diminished physical activity is necessary includes:

Clerical and office work. Education is needed and generally only the higher type of patient is suitable. Special training may be necessary.

Drafting. Special training is needed.

Elevator Operator. Some cardiac cases do very well as elevator operators, especially in the smaller apartment houses where at certain periods there is little to do and rest periods are possible. Several cardiac cases have been so placed by the Industrial Aid Society with good results.

Watchmen. This is a popular idea of a light job. In fact it is often unsuitable for many cardiacs because of stairs, long hours and care of waste paper. A fireman's license is frequently required and involves tending boilers at night.

Assembling. Light assembling work may be

considered ideal. It has become increasingly difficult to find; more and more women are employed. The Ford plant in Detroit uses a considerable numer of male cardiac cases in light assembling work.

Jewelry Trade. Some placements have been made in the novelty jewelry trade on soldering. Experience is generally required in the other branches of the trade.

Attendant. One of our placements of a cardiac case as an attendant in the State hospital for the insane was very successful and he did very well for at least 5 years.

Vegetable Man. While preparing vegetables, a cardiac is frequently able to sit, but the necessity of trips to the basement to carry the vegetables usually makes this occupation unsuitable.

Chauffeur. Driving a car for a private family is frequently suitable. Driving a truck usually involves lifting and in general is too heavy.

Checking. Women are generally used. For night work men are sometimes employed and the occupation is entirely suitable.

The group which presents the greatest difficulty is the unskilled and uneducated laborer who can no longer do heavy work. If he is without a family, a place can often be found by which he can be self-supporting. The real difficulty comes when he has a family and needs the wages which he earned at heavier work.

More particularly in the case of cardiacs no placement should be made without the doctor's diagnosis and recommendations and explaining to the doctor or hospital worker the nature of the work. It is important in dealing with this group of cases for the placement worker to be particularly well informed about the physical equipment of the place of employment as to stairs, elevators, and the nature of the work as to lifting, stretching and standing, opportunities of rest, hours of work and transportation facilities to and from work; all should be given careful consideration."

Lay Mirror Reflections

TYRANNY—NOT REPUBLICAN GOVERNMENT

(From N. Y. Herald-Tribune)

We do not ordinarily look to the medical profession for a broad, searching exposition of fundamental principles in our federated scheme of government or of the genius of the American constitutional system. But in the address of Dr. William S. Thayer, of Baltimore, President of the American Medical Association, at its annual convention in Portland, Ore., we have something of the kind which ought to put to the blush the statesmanship now dominant at Washington.

He was speaking of these as "critical days in the history of parliamentary government, of free government by the majority", which we had got along with so well for 150 years "when tempered by safeguards allowing a fair measure of local independence." Then he went on to say:

> But there are lengths beyond which a majority may not go. When in a country like ours the National Government attempts to legislate for the whole country as to what we may or may not eat or drink, as to how we may dress, as to our religious beliefs or as to what we may or may not read—this is to interfere with rights which are sacred to every English-speaking man. This is no longer republican government—it is tyranny.

More significant even than Dr. Thayer's address was its reception. A majority of the delegates rose and applauded vigorously at such passages as the above. It was an ovation, we are told, which had had no equal in recent medical conventions. And it was this very American Medical Association, as we recall, which the Anti-Saloon League managed to rush into a snap majority vote for its cause at the outset of National Prohibition.

Current Events

THE INTERSTATE POSTGRADUATE MEDICAL ASSOCIATION OF NORTH AMERICA

The International Assembly of the Interstate Postgraduate Association of North America will be held at the New Masonic Temple, Detroit, Michigan, October 21 to 25 inclusive. The Book-Cadillac and Statler Hotels have been chosen as joint headquarters.

Among the foreign visitors appear the names of: Dr. Alan Brown, Associate Professor of Medicine at the University of Toronto; Sir Bruce Bruce-Porter, K.B.E., C.M.G., Internal Medicine, London; Sir John Campbell, Surgery, Belfast; Sir Frank Colyer, K.B.E., Dental Surgery, London; Dr. H. B. Cushing, Professor of Pediatrics, McGill University, Montreal; Sir Henry J. Gauvain, Surgery, London; Dr. Duncan A. L. Graham, Professor of Medicine, University of Toronto; Dr. Campbell P. Howard, Professor of Medicine, McGill University, Montreal; Dr. Thomas K. Monro, Regius Professor of Medicine, University of Glasgow; Dr. Wilder Penfield, Neurologic Surgery, McGill University; Dr. Alexander Primrose, Professor of Clinical Surgery, University of Toronto; Dr. George Eric C. Pritchard, F.R.C.S., Pediatrics, London, and Mr. David P. D. Wilkie, F.R.C.S., Professor of Surgery, University of Edinburgh.

Diagnostic Clinics will be held by: Dr. Charles A. Elsberg, New York; Dr. Herbert B. Wilcox, New York; Dr. Charles H. Frazier, Philadelphia; Dr. Leonard G. Rowntree, Mayo Clinic; Dr. Allen B. Kanavel, Chicago; Dr. W. McKim Marriott, St. Louis; Dr. William S. Baer, Baltimore; Dr. William Darrach, New York; Dr. Howard Fox, New York; Dr. Carl A. Hamann, Cleveland; Dr. Alan G. Brown, Toronto; Dr. Arthur Dean Bevan, Chicago; Dr. Elsworth S. Smith, St. Louis; Dr. William D. Haggard, Nashville; Dr. William E. Lower, Cleveland; Dr. D. A. L. Graham, Toronto; Dr. John B. Deaver, Philadelphia; Dr. Harlow H. Brooks, New York; Dr. William S. Quinby, Boston; Dr. Elliott P. Joslin, Boston; Dr. John M. T. Finney, Baltimore; Dr. John F. Erdman, New York; Dr. Benjamin P. Watson, New York;

Dr. Alexander Primrose, Toronto; Dr. Henry A. Christian, Boston; Dr. Campbell P. Howard, Montreal; Dr. Dean Lewis, Baltimore; Dr. David P. Barr, St. Louis; Dr. Charles H. Mayo, Rochester, Minnesota; Dr. Frank H. Lahey, Boston; Dr. Charles A. Elliott, Chicago; Dr. Hugh Cabot, Ann Arbor, Dr. George W. Crile, Cleveland; Dr. E. Starr Judd, Rochester, Minnesota.

Addresses will also be made by the foregoing specialists and many other eminent guests of the Assembly. The program announces a banquet for Friday evening, October 25, with "distinguished citizens of the world" as speakers.

THE AMERICAN COLLEGE OF SURGEONS' NINETEENTH CLINICAL CONGRESS

The American College of Surgeons will hold its nineteenth annual Clinical Congress in Chicago, October 14-18. Headquarters will be at the Stevens Hotel. An intensive program is being planned to make this home-coming event the greatest in the history of the College. The Hospital Standardization Conference will consist of morning and afternoon sessions, Monday to Thursday inclusive. There will be a series of clinical demonstrations given by: George W. Crile, Cleveland; John B. Deaver, Philadelphia; John M. T. Finney, Baltimore; Charles H. Mayo, Rochester, and others. Monday evening's program will include an address of welcome by the Chairman of the Chicago Committee on Arrangements, Dr. Herman L. Kretschmer, the address of the retiring President, Dr. Franklin H. Martin, Chicago, the inaugural address of the new President, Major-General Merritte W. Ireland, Washington, D. C., and the John B. Murphy Oration in Surgery by Professor D. P. W. Wilkie, of Edinburgh. Among the foreign visitors will be: Dr. James Heyman, of Stockholm; Dr. Thierry de Martel, of Paris; Visconte Aguilar, of Madrid, and Mr. Herbert Tilley, of London. Tuesday, Wednesday and Thursday evening sessions will consist of scientific papers presented by surgeons from the United States, Canada and from abroad. The Annual Convocation of the College will be held on Friday evening. The Fellowship Address will be delivered by Dr. Glenn Frank, President of the University of Wisconsin. The annual meeting of the Governors and Fellows will be held Thursday afternoon, followed by a symposium on cancer and bone sarcoma. An all day session on Traumatic Surgery will be held on Friday, in which leaders in industry, labor, indemnity organizations and the medical profession will participate. A special program has been arranged that will be of interest to those whose practice is limited to surgery of the eye, ear, nose and throat. A feature of the Congress will be the showing of surgical films that have been produced under the supervision and approved by the Board on Medical Motion Pictures of the College. New developments in color photography will be demonstrated. In addition to the commercial exhibits, there will be scientific exhibits by the departments of the College. A rate of one and one-half the regular one way fare has been granted on railroads of the United States and Canada to those holding convention certificates.

Communications

September 15, 1929

To Treasurers of County Medical Societies:

As it is the custom of some of the county societies to make up their budgets and send out bills to members in October, this is to call your attention to the action of the House of Delegates last June, by which the assessment on the county societies for the year 1930 was fixed at fifteen dollars ($15.00) per capita. This was done in order to meet a considerable increase in the budgetary appropriations. (See Transactions, p. 41, supp. to September Journal.)

The increased expense thus authorized became effective at once, while the increased assessment is not due till January, thus producing a temporary stringency in the treasury of the state society. If, in any county, the dues are paid in advance, a corresponding advance payment on account of the assessment would be of great assistance to the state treasurer in this emergency.

Fraternally,

E. J. Marsh,
Treasurer.

County Society Reports

ATLANTIC COUNTY

General Staff of Atlantic City Hospital

Joseph H. Marcus, M.D., Secretary

The General Staff of the Atlantic City Hospital convened in the auditorium August 23, 1929, for its stated monthly meeting. The scientific program was presented by Dr. Homer I. Silvers, Chief of Surgical Service, and Dr. John S. Irvin, Assistant

Following introductory remarks by Dr. Silver relative to the salient features of the surgical service, Dr. Walkup McCain, resident physician, reported a series of 17 fractures of the scapula, 16 of which were directly due to automobile accidents and one was sustained from an elevator crash. Roentgenographic interpretations of the types of injuries were also presented: 8 of these fractures occurred through the surgical neck, 9 through the body, of the scapula; 8 were in males, 9 in females; 8 cases were accompanied by various other fractures and all patients recovered with the exception of the one who was injured in the elevator crash and who also sustained a crushed chest.

The National Safety Council published the following figures for 1928: Approximately 96,000 persons met death through accidents that year, 27,500 of these due to motor vehicle mishaps. While the death rate of all other accidents has actually decreased 8% since 1913, that for auto accidents in 1928 was 5 times as high per 100,000 population as in 1913. Representative states report about 35 nonfatal motor vehicle accidents of some seriousness for every fatality. On this basis there were about 950,000 such injuries in 1928, bringing the total number of injuries of consequence from motor vehicle accidents to about 1,000,000.

Dr. Cotton, of Chicago, says that he has seen only 4 cases of fracture of the surgical neck, and these he has reported in his book. He states that he at times is unable to diagnose such a condition by signs and symptoms only, but resorts to x-ray findings for conclusive diagnosis. There was an absence of classical signs and symptoms in the cases here presented, which findings were described by other authors. The following case was presented:

While riding a motorcycle, the patient was hit by a truck and was admitted to dispensary in shock, with displacement of left shoulder and loss of use of left arm. Treated for shock, and shoulder strapped. Roentgenographic examination confirmed diagnosis of fracture of the surgical neck with some displacement. Patient placed on fracture bed with pad in middle of back and sand bag to shoulder. He complained of abdominal symptoms but his symptomatic expression and the absence of physical signs did not justify surgical procedure. Patient felt much better after fifth day and made gradual improvement; at the present time his condition is excellent.

Dr. John S. Irvin presented a statistical survey of the morbidities and mortalities after which he presented the following dissertation on "Some Aspects of Gastric and Duodenal Ulcers".

"During the course of an operation in one of our cases of ruptured duodenal ulcer, 2 questions were brought up: (1) The sex incidence of ruptured ulcer; (2) the advisability of performing a gastro-enterostomy at the time the perforation was repaired. Nobody present could recall offhand having seen a ruptured ulcer in a woman and there seemed some difference of opinion as to the second question raised.

I thought it might be interesting to see what evidence our records might bring to bear on both these points. The statistics I have gathered are, I am afraid, incomplete for I found that our cross index system has not been very well kept for the last 5 years. I feel sure that I have not been through all the ulcer cases admitted to the hospital since the beginning of 1924, which is as far back as I have gone. I have also discovered that there are some incomplete and careless histories on the charts I looked over. Some made no mention of ulcer history. In some it was not possible to tell the time between rupture and operation. There were several diagnoses that seemed unwarranted. There were some cross index cards on which the diagnosis did not agree with that on the chart. I found only 2 cases of ruptured ulcer for 1924. It is hardly likely that there were no more than that for the whole year.

I at first thought that I had found 4 cases of ruptured ulcer in women. One of these, however, was in a woman who came in moribund and in which a diagnosis of ruptured ulcer was made. There was no operation. Autopsy showed that the condition was a volvulus. The diagnosis had not been corrected on the chart. Another case carried the diagnosis of ruptured ulcer, but there was nothing in the history or findings to warrant this diagnosis. The woman was bleeding seriously on admission and obviously died of hemorrhage. This left 2 cases of perforation in the female: one a duodenal ulcer in the usual situation, and the other an ulcer in the third part of the duodenum.

In a not very complete search of the literature I found only one mention of sex incidence in ruptured ulcer. Ochsner, in his "Surgical Diagnosis and Treatment", 1921, says that ruptured duodenal ulcer is 10 times as frequent in men as in women. Vaughan and Brams (Surg., Gyn. and Obst., 39:610-617) reported 13 cases of ruptured ulcer; 8 of these were in males, but the sex of the other 5 was not reported. Wolfson and Gray (Annals of Surg., Feb., 1929) reported 27 cases of ruptured ulcer, one in a woman and the sex in 8 cases not mentioned.

I found a total of 106 cases of gastric and duodenal ulcer admitted since January, 1924. Of these, 12 were doubtful or suspected ulcers but I have included them. There was a large preponderance of male over female in ulcer admissions, 87 to 19. As Chart No. 1 shows, there were 30 ruptured ulcers in males, or 34.5% of all male ulcer cases. There were 2 ruptured ulcers in females, or 10.5% of all female ulcer admissions.

In the literature concerning gastro-enterostomy in ruptured ulcer, the concensus of opinion seems to be that it should be reserved for those cases in which there is danger of obstruction at the pylorus.

Finney and Hanrahan, in Lewis's Practice of Surgery, say that Deaver does this procedure routinely following closure of the ulcer. Dr. V. E. Johnson, however, told me that he questioned Dr. Deaver about this and that he replied that he did not do it routinely. Moynihan and Finney, according to the same authorities, practice it "only when the exigencies of the case, such as pyloric obstruction or multiple ulcer, demand it." Finney says, "It is usually advisable to limit the time of operation and, furthermore, the cases in which it was not done have seemed to do as well as, or better than, those in which it is practiced".

Ochsner and Percy, in "A New Clinical Surgery", 1911, say, "It is rarely necessary or wise to perform a gastro-enterostomy at time of closing an acute perforation of the stomach, because the additional trauma and manipulation are apt to increase the gravity of prognosis."

Ochsner, in his "Surgical Diagnosis and Treatment", 1921, says, "If ulcer is extensive or operation performed soon after rupture has occurred, one may add gastro-enterostomy to the operation; but if there is any doubt about the patient's condition . . . it is better to postpone this portion of the operation to some later date."

Moynihan, in "Addresses on Surgical Subjects", 1928, advises gastro-enterostomy in cases of perforated duodenal ulcers when there is danger of stenosis, but not in ulcers where there is no danger of immediate stenosis.

Ogilvie, in "Recent Advances in Surgery", 1928, says, "Many Surgeons have recently urged that gastro-enterostomy should also be carried out at time of operation; but no large series in which this has been done shows such a low mortality as the New Castle figures" (194 cases: total death rate 15.64%, and in 98 cases operated on within 12 hours, 8.16%).

Chart No. 2 shows the type of operation and the time that operation was performed after rupture of our cases. Chart No. 3 shows the results of operation in all cases under 24 hours grouped together. While this is a small number on which to base an opinion, it shows somewhat better recovery figures for the simpler operation. These figures might be changed if the 5 cases in which the time between rupture and operation was not recorded could be included.

While on the subject of ruptured ulcer, I

would like to quote briefly a case on our service, which is now being treated by Dr. Barbash who very kindly allows me to use it. Patient was sent in with diagnosis of ruptured ulcer. While this condition is fairly easy of diagnosis in the early stages, this case illustrates one of the conditions which may masquerade as ruptured ulcer:

Mr. D. C., 46 years of age, a clerk, was admitted to the surgical ward, July 28, 1929, complaining of pain in the upper abdomen. One year ago he was treated in another hospital for several weeks for gastric ulcer and afterwards was treated by a physician for 6 months, during which time he was on a modified Sippy diet. At the end of this period he felt well and continued so until 24 hours before admission when he began to have severe pain. He stated on admission that this pain was in the epigastrium, that it came on suddenly, but did not reach its greatest intensity at once. It had been very severe, but on admission had somewhat diminished. Shortly after the pain started he had been given a hypodermic from which he got very little relief.

When first seen he was markedly prostrated and was obviously suffering intense pain. There was definite tenderness in the epigastrium and rigidity in the upper half of the abdomen which, while not boardlike, was very definite. There is no record on his history that he had vomited, but my recollection is that he had.

Temperature 99.4°; pulse was hard to count; heart rate 140, with some irregularity; blood pressure 98 over 90. W.B.C. 20,750 with 77% polys. Urine showed 45 mg. % albumin and a faint trace of acetone.

Dr. Mason saw the patient with me. While the case looked very much like a ruptured ulcer, especially with an apparently definite ulcer history, we felt that it might be coronary thrombosis, because of the condition of the heart and the small pulse pressure. We were unwilling to make a definite diagnosis and requested Dr. Barbash, as a medical man, to see him. Dr. Barbash felt very decidedly that it was not a surgical condition and one of his reasons for this was that the patient turned from side to side when requested without apparently increasing his discomfort. Dr. Rosenberg, who had seen the man when he was first taken ill, then came in and told us that the pain had started in the precordial region and at that time there was no abdominal tenderness or rigidity. We then agreed that it was probably a case of coronary thrombosis and that even if we were wrong, and the condition a surgical one, the patient could probably not survive any operative procedure.

The next day the abdominal signs had largely cleared up and since then the case has run the typical course of a coronary thrombosis."

Dr. Homer I. Silvers presented the following:

"It is evident that, due to our changing methods of transportation, coupled with demand for change in our ordinary living, bringing people in closer contact in crowds and jams, fractures that were once looked upon as rare are now being seen with greater frequency. There is no doubt but that, through improved methods, notably in roentgenologic examinations, adopted during the last decade, numerous cases have been defined that would formerly have been overlooked. Unquestionably the greatest single factor, however, is the increasing use of the automobile with crowding of the roads with irresponsible drivers.

Fracture of the scapula has been classed as one of the rare fractures, particularly fracture of the anatomical neck. Looking back a few years, we find all fractures of the scapula classified as rare. Speed, in 1916, in reviewing 11,302 cases of fracture at the Cook County Hospital, found but 81 fractures of the scapula, and 19 of those were of the acromion. While fracture of the scapula seems to now occur with greater frequency, fracture of the surgical neck is still comparatively rare, and of the anatomic neck quite rare. John B. Roberts, in 1916, says: "Fractures of the so-called anatomic neck, that is immediately behind the glenoid cavity and parallel with it, are practically unknown."

So it is with the pelvis. X-ray examination has disclosed an increasing number of the various types of fractured pelvis. At one time fracture of the pelvis was to a large extent confined to those employed in work that might inflict crushing injuries. Now, with the huge number of accidents caused by automobiles, we are seeing more cases of fractured pelvis. Fracture of the ischium, which a few years ago was classed as rare, is also more frequently encountered. Speed, in his same analysis of fractures as quoted before, found in 11,302 fractures but 76 fractures of the pelvis.

With the automobile has also come a great increase in head injuries, corresponding to the seasons when the automobile is most in use and the roads most crowded. It was in the past quite usual, and certainly the approved treatment, to open every skull that showed a fracture, often irrespective as to whether compression symptoms were present or not. Today much more conservative methods are employed and the simple diagnosis of skull fracture does not determine operation. It is clearly and definitely realized that the simple breaking of the boney covering is not to be feared but the damage or injury to the cranial contents.

Frequent lumbar punctures will be made to determine pressure in the subarachnoid space as well as to ascertain the presence of foreign substances, notably blood. Repeated spinal punctures, bringing the pressure down to within reasonable limits, as well as removing certain amounts of blood, have done much for patients without submitting them to a major operation. A valuable adjunct is the use of high per cent glucose solution intravenously to dehydrate the brain in cases of edema which are very common after severe brain contusions. Coupled with the use of glucose intravenously there should be frequent administration of magnesium sulphate in appreciable doses, until very free catharsis is obtained, the object sought being to dehydrate the patient to a moderate degree. And with it all, the patient is given a chance, by means of sedatives and rest, to marshal his own fighting and resisting powers.

I wish to present the case of a woman with rectal stricture of presumable syphilitic type. She shows the astounding changes that can take place in an individual once we remove causes that are steadily undermining resistance with constant decline in health. The question as to what part syphilis plays in the formation of a stricture of the rectum has now become a debatable point. It is true that a distinct history of lues, or a positive Wassermann, is obtained in a large percentage of patients with stricture,

but that does not definitely prove causation any more than the use of antisyphilitic treatment which fails to influence the stricture, proves the reverse. A large proportion of strictures are found in the colored, and you have but to think of the high proportion of positive blood reactions in that race, at least among those that enter the hospital, to realize that we must be chary about placing syphilis as a cause.

The condensed history of this woman, whose age is 40 years, is that she was admitted about April 24, 1929, complaining of pain in both buttocks which were discharging pus; this condition had been present for 4 months. Family and personal history show nothing of interest. Present illness dates back four months, when an abscess developed in the right buttock; later an abscess appeared on the left side. Patient complains of severe pain on the left side.

Physical examination shows a poorly-nourished negress lying quietly in bed; she gives poor coöperation. Heart sounds are of poor quality, regular, no murmurs; pulse weak but regular. There are palpable masses in the lower abdomen; both buttocks discharging pus; discharge of pus and blood from rectum. Maximum temperature on admission 102°. Under nitrous oxide the abscesses were opened. A chill occurred the third day, temperature rising to 105°. This was repeated on several successive days, after which the temperature declined to 102° or 101°, where it remained for 10 or 12 days, when another series of chills began.

June 1, patient was again taken to the operating room, where both abscesses were evacuated by wide incisions; an exploratory incision was then done for the purpose of examining the mesentery and liver for metastasis, and the operation was completed by doing a left inguinal colostomy. Temperature came down immediately and remained normal until the patient was discharged Shortly after convalescence was established, her appetite increased and she began to gain weight. We had no means of weighing the patient but we know that she was emaciated and our first record showed 105 lb. on June 6, 1929. She had gained weight then at the rate of a pound a day, her present weight being 137.

So often a colostomy is done as an operation of last resort, where the terminal condition is such that life expectancy is short.

Colostomy in this cases gave the lower portion of the rectum complete rest and the discharge promptly ceased. Patient has very little trouble from the opening, takes care of it herself, and with proper diet has 2 evacuations a day."

Discussion by Drs. Allman, Carrington and Barbash followed this report.

The necropsy report for the preceding month totaled 48%.

The Major Staff convened following the meeting of the General Staff.

BERGEN COUNTY

Charles Littwin, M.D., Reporter

The regular meeting of the Bergen County Medical Society was held on September 10, 1929, at the Hackensack Hospital, Dr. Levitas presiding.

Dr. Sarla read the Treasurer's report as follows:

Cash on hand Jan. 1, 1929	$1204.97	
Received	2526.00	
Borrowed from savings acc.	300.00	
		$4030.97
Expenditures		3921.36
Balance		$ 109.61
Savings		901.68
State Assoc., 164 members	$1640.00	
Printing	215.70	
Advertising	1126.93	
Meeting	350.00	
Miscellaneous	188.73	
Relief	500.00	
	$3921.36	

Miscellaneous

Dr. Clarke's expenses	$ 30.00
Dr. Barton's travelling expenses	25.00
Flowers, Drs. Brundage & Ogden	50.45
Dinner Programs	6.50
Mimeograph special letter	3.10
Plate by H. H.	8.68
Guests' Dinner	10.00
Pageant float	50.00
Treasurers' report	5.00
	$188.73

Dr. J. L. Brown, of Cliffside, was unanimously elected to membership. Applications for membership from Drs. Byer, Heller, Nichols, Richie and Payawall were read, and also for transfer of Dr. William Greenfield. Letters of thanks were read from Drs. Sullivan, Clock and Swayze for their election to honorary membership.

Notice has been received from Dr. Morrison, Secretary of the State Medical Society, of the need to revise our by-laws. The President appointed a committee (to be named) to submit the amendment at the next meeting.

The Chairman of the Public Relations Committee reported on the program arranged for this session and stressed the need for more funds if this is to be carried out.

Dr. Littwin advised us that the state society dues have been raised to $15 a year, which will necessitate a further increase in our dues. He then made a motion, which was seconded and passed, that our dues for the coming year be raised to $25 per member. This will be sent out in the announcement next month and voted upon again.

The speaker of the evening was Dr. Robert L. Dickinson, of New York, Secretary of the Committee on Maternal Health. He spoke at length on various problems of birth control and contraceptive methods in use, also on sterilization. His talk was illustrated by beautifully colored lantern slides which he drew himself.

Over 70 members attended the meeting.

MIDDLESEX COUNTY

William C. Wilentz, M.D., Secretary

The regular monthly meeting of the Middlesex County Medical Society was held September 18, at 4:30 p. m., at the Middlesex General Hospital, New Brunswick, with Dr. Spencer presiding. The minutes of the last meeting were read and accepted.

A communication from the state medical society, relative to the necessary changes and amendments to the constitution and by-laws of our county society in order to conform to those

of the state society, was read. A motion was duly made and seconded that the president appoint a committee to study these changes and report to the society.

A communication was received and read stating that Dr. A. Schuyler Clark, a member of this society, died in his office, 614 Park Avenue, New York, of angina pectoris. Dr. Gutman made a motion that suitable resolutions be drafted and forwarded to Dr. Clark's widow. This motion was seconded, and Dr. Spencer appointed Dr. Hoffman to draft the resolutions.

Dr. M. L. Morris, veterinarian, spoke on "Veterinary Problems of Interest to the Physician". He stated that more thorough investigations should be made in regard to the sources of milk and meat supplies, giving illustrations of how diseased animals were slaughtered and then sold on the markets. He also felt that rabies was very common among dogs and that it was on the increase in this community. He was very emphatic about not permitting police officers to shoot dogs until fully studied. In his experience, he found no dogs with rabies that have been immunized every 12 months. An interesting discussion took place.

Dr. McLean, of the New Jersey Agricultural Experiment Station, was the next speaker. He informed the society of the various methods used to reduce lead arsenate in fruits so as to conform to the state regulations.

Dr. Blake, Chief of Horticulture at this station, was the last speaker and gave a short talk on the different types of peaches which are shipped to our various markets and the effect they have upon those who eat them.

A vote of thanks was extended to Drs. Morris, McLean and Blake for their interesting talks to the society, and the meeting adjourned.

MORRIS COUNTY

Marcus A. Curry, M.D., Reporter

The annual meeting of the Morris County Medical Society was held, following a custom of several years standing, at the New Jersey State Hospital at Greystone Park on the evening of Tuesday, September 24.

President Mial presided over an assemblage approximating 50 members and guests; among the latter being Dr. C. E. F. Laatsch, of the Greystone Park Medical Staff, and Dr. Earl W. Fuller, Director of Mental Hygiene Clinics of Northern New Jersey, which operate from the Greystone State Hospital.

Routine business was expeditiously transacted and Secretary Lathrope reported a meeting of the Executive Committee recently held conjointly with the Committee on Revision of Constitution and By-Laws: that the revision is practically completed and a copy will be placed in the hands of every member of the society within the next month or two: that the committee thought rather than bring it before the meeting this evening it would be better to call a special meeting owing to the length of time it will take to go over the revision, particularly with the discussion which the committee hoped there would be; that the effort of the committee has been to submit a complete document and they are asking every member to make a study of the revision, giving thought to what ought to be changed or taken away or added; that the effort has been all the way through to be more specific as to the various functions and operations of the different units of the society; that it is the plan to call a special meeting in October or November at which the document may be passed on first reading, and probably passed by title at the December meeting.

A communication was read by Secretary Lathrope from Mrs. Ludmila Hussa Flagge, widow of late member Dr. Frederick A. Flagge, of Rockaway, expressing sincere appreciation of flowers received from the society.

Treasurer Emory rendered a very satisfactory account of his stewardship, showing a balance in bank of $1400.31; 85 paid up memberships, and only 1 member in arrears. The Treasurer also called attention to the fact that the state society dues have been increased to $15 for each member, leaving nothing to run the county society unless the balance be attacked or the county society dues be increased; that the matter would come up later and there seemed nothing to do but to increase our own dues. Treasurer Emory requested that an Auditing Committee be appointed to go over the accounts of the society and by action duly taken Dr. L. C. Williams, of Madison, was appointed to act in that capacity.

There was no report from the Library Committee or the Publicity Committee, no members of these committees being present.

The Committee on Resolutions presented the following resolutions which were unanimously adopted:

FREDERICK W. FLAGGE

"In the death of Frederick W. Flagge, of Rockaway, on July 28, 1929, the medical profession of Morris County and the community in which he practiced lost a real friend.

To those of us who were privileged to have intimate contact with him his work was an inspiration. His tolerant attitude toward the faults of his fellow practitioners was one of his outstanding qualities.

Many of the younger men in his vicinity owe a great deal of their success to the support, encouragement and guidance of Dr. Flagge. His strict adherence to ethical principles of practice was a religion with him.

Although beginning practice at a time when his stethoscope and thermometer were his only instruments of precision, he always kept abreast of the advances in medicine and brought to the bedside a mind trained to observe and a hand skilled to act.

His interest in the county society was intense and no call from the society was ever left unanswered.

A physician of the highest type, learned in the science and art of medicine, cultured in the broadest sense, a charming companion and above all a loyal friend.

The privilege of having been associated with a man of his sterling character; the example of kindliness, tolerance and altruism which he left us will serve to soften the loss which his family, his community and his society have sustained."

PETER H. HANN

"Whereas, we have learned of the death of Peter H. Hann, a former fellow practitioner ot Dover, New Jersey;

Be it resolved, that we and the County of Morris have suffered the loss of a pioneer physician whose devotion to his profession, his attitude of self sacrifice to his patients and his conduct as a citizen, have been an inspiration to his colleagues and endeared him to the hearts of his patients, who will always cherish his memory;

And be it further resolved, that these resolutions be spread upon our minutes and a copy be forwarded to his family."

There were 2 nominations for new membership in the society: Stanley Teskey, of Bernardsville, on whom a waiver from the Somerset County Society will first have to be obtained; and D. W. Teller, of Morristown. These nominations were duly referred to the Credentials Committee for report at the next meeting.

ELECTION OF OFFICERS

The Nominating Committee submitted the following roster of officers and delegates and, there being no further nominations, they were unanimously elected: President, Laurence M. Collins; Vice-President, Ellery N. Peek; Treasurer, George B. Emory; Secretary, George H. Lathrope; Reporter, Marcus A. Curry; Historian, Henry W. Kice. Additional members of the Executive Committee: L. L. Mial, William A. McMurtrie and Edward T. Carberry. Members of the House of Delegates of the State Society: One year, B. C. McMahon; two years, T. S. Thomas and A. L. L. Baker; three years, William F. Costello and Edward T. Carberry. Alternate Delegates: One year, William J. Wolfe; two years, W. Blake Gibb and Marcus A. Curry; three years, F. G. Reed and Frederick E. Knowles.

The question of increasing the annual dues of the society was presented and, by action unanimously taken, increased from $15 to $20.

Next in order came the President's Address by Dr. Mial. The retiring president's contribution not only embraced a review of the intimate activities of the society but reached out and encompassed many phases of real and vital importance to the profession and the public. The prolonged applause at the conclusion makes it safe to set down Dr. Mial's contribution as a masterpiece of its kind. (The paper has been definitely promised for submission to the Editor for publication and is recommended as well worth reading and digesting.)

Mrs. E. C. Taneyhill, the Field Secretary of the State Society, was presented with great pleasure to the members and guests and, after a very interesting summary of her activities and future plans, gave a talk on "The Life and Work of Pasteur", illustrated by lantern slides, with a charm and grace which undoubtedly justify all the fine things that have been said and published by societies and organizations of New Jersey and other states that have been favored by her presence. The reflares of the life and accomplishments of Pasteur, with the many intimate chapters which Mrs. Taneyhill's keen knowledge of her subject enabled her to inject, must compel us not only to pause in reverence and evaluation of Pasteur as a precious gift to civilization in general and the medical profession in particular, but also to ponder over whether we all are really as busy and troubled as we sometimes permit ourselves to think.

Mrs. Taneyhill's splendid contribution was received with utmost attention and respect for her subject and herself, and at the close a rising vote of thanks and appreciation was spontaneously given for the interest and inspiration which her presentation so manifestly stimulated.

On invitation of Superintendent Curry a buffet supper was enjoyed in the cafeteria.

PASSAIC COUNTY

F. W. Ash, M.D., Secretary

The regular meeting of the Passaic County Medical Society was held at the Health Center, Paterson, September 12, at 9 p. m. In the temporary absence of Dr. Spickers, Dr. J. P. Morrill presided. The minutes of the May meeting were adopted as read.

The application for membership of Dr. Morris Joelson was returned from the Board of Censors with approval. Dr. Charles Mitchell reported that the indictments formerly held against Dr. Joelson had been Nolle Prossed. Drs. T. A. Dingman and M. Wisnack were appointed tellers and balloting was proceeded with. Twenty-eight members voted, 16 for and 12 against the application, which was thus defeated, since the by-laws require a majority of two-thirds for acceptance.

Dr. David Shapiro reported a very interesting case of exophthalmus caused by intra-orbital tumor. Photographs of the patient before operation showed extreme deformity. The patient herself showed the eye in normal position following operation. Discussion by Drs. Marsh and Van Winkle followed.

A letter from Dr. Mendelsohn, regarding state group health insurance, was read. In it he stated that he was reimbursed only for the time spent in bed, not for that spent convalescing. This matter was referred to Dr. Pinneo for opinion and comments.

A letter from the Paterson Chamber of Commerce, regarding the historical pageant to be held in honor of Edison's golden jubilee, was read, inviting the society to participate. This was referred to the executive council with power of action.

Dr. Walter E. Dandy, neurologic surgeon, Johns Hopkins Hospital, addressed the society on the subject of "Brain Tumors". In his address he spoke of the value of pneumoventriculography and the use of x-rays before and after this procedure. It was stated that brain tumors were far more common than generally supposed. In dealing with brain abscesses, aspiration was advised until sterilization and contracture had taken place, then excision. Lumbar puncture should never be used in the presence of brain tumor or skull fracture. Prevention of trauma while operating is essential to success in brain surgery. Discussion was participated in by Drs. Wengerand, Marsh, Polow, Wassing, Mendelsohn and McBride. A rising vote of thanks was given Dr. Dandy for the excellent exposition of his subject.

A letter was read from the Paterson Evening News inviting the society to advertise health examinations on a special page, once weekly at cost of $12.50 per week. This was referred to Executive Council.

The following nominating committee was appointed by the President: L. G. Shapiro, Chairman; N. M. Dingman and E. J. Marsh.

The meeting adjourned at 11:45 p. m.

UNION COUNTY

Summit Medical Society

William J. Lamson, M.D., Secretary

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines, on Tuesday, September 24, 1929, with President Meigh in the chair, and Dr. Bensley entertaining.

Members present were Drs. Bensley, Bowles, Campbell, Disbrow, Eason, Keeney, Krauss, Lamson, Lawrence, Macpherson, Meeker, Meigh, Milligan, Moister, Prout, Reiter, Smalley, Tidaback and Wolfe. Guests included Dr. Allis, of Basking Ridge; Dr. Sly, of Summit, and Drs. Whitehouse and Lyon, of Summit.

Dr. Jere A. Allis, of Basking Ridge, was unanimously elected a member of the society. Application for membership was received from Dr. Robert M. Miller, of Summit, and placed on file.

Dr. Bensley presented 2 very interesting motion picture films, one on intestinal peristalsis, and the other on infections of the hand.

Refreshments were served at the close of the meeting.

Annual Dinner.

The annual dinner of the Summit Medical Society was held at Wallace Pines on Friday, September 13, 1929, at 7:30 p. m. Present: Drs. Bowles, Byington, Campbell, Disbrow, Hallock, Keeney, Krauss, Lamson, Lawrence, Larrabee, Macpherson, Meeker, Meigh, Milligan, Pollard, Prout, Reiter, Smalley, Tater, Tidaback and Wolfe; and the following guests: Dr. Andrew F. McBride, President of the Medical Society of New Jersey; Dr. Clark, Honorary Member of the Society; Dr. Allis, of Basking Ridge; Dr. Smith, of Short Hills, and Drs. Thomas, Messina and Sly, of Summit.

With good appetite we sat down to enjoy the usual Testerian viands, running from hors d'oeuvres, through lobster thermidor and filet mignon, to coffee.

President Meigh, after a few reminiscences relating to the growth of the county society, now nearing the completion of its twenty-fifth year, introduced our guest of honor, Dr. Andrew F. McBride, of Paterson, President of the state society. Dr. McBride emphasized the need of cooperation between our society and the state society in securing higher standards for those who wish to enter the profession, and in carrying on general public health work.

Drs. Lawrence and Prout gave interesting accounts of some of their summer activities, and the Secretary also made a few remarks.

Dr. Meigh called attention to the death, June 13, 1929, of one of our oldest members, Dr. David E. English. Dr. English was a member of the society from May 26, 1905, to April 24, 1924, when he removed to Florida on account of his health. Drs. Campbell and Prout were appointed a committee to draw up appropriate resolutions to be sent to Mrs. English.

And so another annual dinner passes into our history as one of the best we have ever enjoyed.

In Lighter Vein

She Had Nothing to Kick About

"Say, looky hya, Rastus, you know what yo're doin'? Yo' is goin' away fo' a week and they ain't a stick o' wood cut fo' de house."

"Well, what yo-all whinin' about, woman? I ain't takin' de ax!"

"Confession," says the jolly Lord Dewar, "may be good for the soul, but it is bad for the reputation."

A London banker says he would enjoy running a newspaper column for just one day. And what we could do to a bank in just an hour!—New York Evening Post.

It would be interesting to know how many millions of gallons of gasoline the people of this prosperous country consume per diem just driving around looking for parking places.—Ohio State Journal.

The only ambition in life a paper napkin has is to get down off a diner's lap and play on the floor.—Kay Features.

Writer asks: What steps should the pedestrian take to protect his rights? Fast ones, but careful ones, brother.—Arkansas Gazette.

More than 1000 million packages of chewing-gum were manufactured in the United States last year. America has such vast open spaces that the parking problem has not yet become really acute.—Punch.

Ambition still may be the main thing that keeps our people moving, but the "no parking" sign is doing its part.—Council Bluffs Nonpareil.

Follow-Up System

The traveling man opened the telegram and read—"Twins arrived tonight, more by mail."—Wright Engine Builder.

Sculptor Would Restore Venus de Milo.—Head-line. Give the little girl a hand.—Arkansas Gazette.

Life Is Like That

A little fellow of our acquaintance wants to know why vitamins were put in spinach and cod-liver oil instead of in cake and candy.—Boston Transcript.

Breaking a Habit

When the plumber died his wife took no chances. She buried his tools with him.—Life.

Independent Citizen

Doctor (questioning negro applicant for chauffeur)—"George, are you married?"

"No, suh, boss, no, suh. Ah makes my own living."—Annapolis Log.

LEST WE FORGET

By Curtis Wheeler

The cold rain falls on Dun-sur Meuse tonight,
My brothers of the Marne, do you fare well,
Where by the ford, or on some wind-swept height,
You lie among the hamlets where you fell?

Do you sleep well these wet November nights,
Where there is never any brushwood blaze,
To cast within the dugout wavering lights,
And warm the chill of these benumbing days?

Romagne sous Montfaucon! The little towns
That scatter from the Somme to the Moselle,
Some silent sentry on their high-backed downs,
Harks still to every far white church's bell—

The humble little church of misty hills,
Set where the white roads cross, with ruined fane,
Where through the window gaps with war-scarred sills,
A bettered Christ looked out into the rain—

Silent, all silent to the passer-by,
Those lonely mounds, or rows of crosses white,
Beyond the need of bitter words they lie,
But are they silent to their friends tonight?

Can we stand whole before a crackling fire—
We, who have gone in peace year after year
Singing and jesting, working again for hire—
Deaf to the message they would have us hear?

Not while the red of poppies in the wheat,
Not while a silver bugle on the breeze,
Not while the smell of leather in the heat,
Bring us anew in spirit overseas.

Still shall we hear the voice that fell behind,
Where eddying smoke fell like a mountain wrath,
And in the din, that left us deaf and blind,
We sensed the muttered message clear—"Keep Faith".

To every man a different meaning, yet—
Faith to the thing that set him, at his best,
Something above the blood and dirt and wet,
Something apart, may God forget the rest!

The cold rain falls in France, ah send anew
The spirit that once flamed so high and bright,
When, by your graves, we bade you brave adieu,
When Taps blew so much more than just "Good Night".

JEANES HOSPITAL

AN ENDOWED CANCER AND DIAGNOSTIC HOSPITAL

SITUATED on 64 acre tract, readily accessible to Philadelphia and vicinity by automobile, train, trolley and bus.

Operating suite. Roentgenological department, diagnostic and therapeutic. Machines of latest types for deep and superficial therapy. Complete pathological laboratory. Dental room.

Accommodations for 72 patients. All graduate registered nurses. Full-time staff — consulting staff. Rates adjusted to patients' ability to pay. Reports sent to physicians referring patients. Management, Society of Friends. Non-sectarian. Descriptive booklet on request.

JEANES HOSPITAL FOX CHASE, PHILA.

Rheumatic Diseases

Arthritis, Sciatica, Lumbago, Neuritis and Gout Treated Exclusively

Painstaking diagnosis and therapy as indicated; complete clinical laboratory and department of physiotherapy.

SHANNON LODGE is centrally located and fully equipped. Rheumatic patients accepted only. Limited accomodations are carefully restricted. All treatments under the constant supervision of the Resident Medical Director. Reports available to referring physicians, who may at all times retain contact with patients. A completely equipped pathological laboratory supplements diagnoses and treatments. Reservations necessary in advance. Inspection cordially invited.

120 acres of woodland privacy, 800 ft. elevation, 20 mile view. Forty-two miles from New York. Tastefully, yet unostentatiously furnished. Atmosphere of a fine country home.

Shannon Lodge
Bernardsville, N.J.

Complete information, rates, treatments used, etc., gladly sent upon request to the Medical Director

THE NEW YORK POLYCLINIC
MEDICAL SCHOOL AND HOSPITAL
(ORGANIZED 1881)

(The Pioneer Post-Graduate Medical Institution in America)

We Announce

FOR THE GENERAL PRACTITIONER

A combined course comprising

INTERNAL MEDICINE
PEDIATRICS
GASTRO-ENTEROLOGY
DERMATOLOGY
NEUROLOGY
OBSTETRICS
PHYSICAL THERAPY
PATHOLOGY AND BACTERIOLOGY
SURGERY
NEURO-SURGERY
UROLOGY
PROCTOLOGY
GYNECOLOGY (Surgical-Medical)
ORTHOPEDIC SURGERY
TRAUMATIC SURGERY
THORACIC SURGERY
OPHTHALMOLOGY
OTOLOGY
RHINOLARYNGOLOGY

FOR INFORMATION ADDRESS

MEDICAL EXECUTIVE OFFICER, 345 W. 50th St., NEW YORK CITY

Continued from page XIX

evidently acts as a flavor, only. The preparation must therefore be considered an alkaline phenol solution containing sodium phenolate rendered unscientific and needlessly complex by the addition of witch hazel and boric acid. Alkaline phenol solutions were in extensive use many years ago but have been generally abandoned. The preparation therefore is not only unscientific but it also lacks novelty, and extensive use of similar preparations has failed to demonstrate the usefulness of alkaline phenol preparations. The Council declared Sodiphene unacceptable for New and Nonofficial Remedies because it is an unscientific, needlessly complex mixture, marketed under a nondescriptive name, which presents no originality entitling it to a proprietary name and which is marketed without a statement of composition on the label and for which unwarranted claims are made. (Jour. A. M. A., August 3, 1929, p. 381.)

Blood Sugar Testing Outfits.—The various blood sugar testing outfits on the market are, for the most part, satisfactory for clinical work, especially when one wishes to follow the blood sugar values from time to time. None of these instruments are as reliable as the special methods advanced in the literature, but most of them are based on the principles of these tests, so that the difference is largely one of degree of accuracy of the results. If one uses the same instrument or method on different specimens of the patient's blood, whatever error there may be in the outfit or method employed is introduced at each testing, so that the results obtained are comparable. It is hard to see how the Sheftel sugar test can yield anything more than a rough estimate of the sugar contents. The claim of a percentage of error of less than 0.1 per cent is so ridiculous as to throw discredit on the originators. (Jour. A. M. A., August 3, 1929, p. 403).

The Action of Digitalis in Heart Failure.—Clinicians have generally accepted the pharmacologic evidence that digitalis causes a more vigorous and larger ventricular contraction. But it is difficult to accept the view that a muscle such as the heart, which cannot rest after being overstimulated, is improved by being forced to beat harder. It has now been shown that the efficiency of the heart, or its capacity for doing a fixed amount of work with least oxygen consumption, varies inversely with its diastolic volume. It was shown further that digitalis causes the heart to decrease its diastolic volume while carrying a constant load. Thus, digitalis reduces the energy requirement of the heart or permits it to do more work with the same expenditure of energy. (Jour. A. M. A., August 17, 1929, p. 548.)

Viosterol: Irradiated Ergosterol.—The demonstration that many food materials can acquire unique physiologiv potencies when the products are subjected to the direct influence of ultraviolet rays is a contribution of recent scientific investigation. The effects of the irradiated substances within the body are identical with, or equivalent to, those that have been ascribed to vitamin D, the antirachitic food factor. The latter is known

Continued on page XXVI

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Andrew F. McBride.....Paterson
First Vice-President, George N. J. Sommer.....Trenton
Second Vice-President, John F. Hagerty.....Newark
Third Vice-President, Paul M. Mecray.....Camden
Corresponding Sec., William J. Carrington....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Lucius F. Donohoe, *Chairman*.....Bayonne
James Hunter, Jr., *Secretary*.....Westville
Norton L. Wilson.....Elizabeth
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Paul M. Mecray.....Camden
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires, 1932	George H. Lathrope, Newark
Second District	" " 1931	B. S. Pollak, Secaucus
Third District	" " 1930	Martin W. Redoan, Trenton
Fourth District	" " 1929	George T. Tracy, Beverly
Fifth District	" " 1933	J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

Ralph K. Hollinshed, Westville.....Term expires 1930
Lancelot Ely, Somerville....." " 1931
Henry C. Barkhorn, Newark....." " 1932

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City.....Term expires 1932
J. Finley Bell, Englewood....." " 1932
Thomas B. Lee, Camden....." " 1930
Henry Spence, Jersey City....." " 1930
H. Garrett Miller, Millville....." " 1931
Harvey S. Brown, Freehold....." " 1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty.....Term expires 1931
B. S. Pollak....." " 1931
W. Blair Stewart....." " 1930
E. R. Mulford....." " 1931

Alternate Delegates

George H. Sexsmith.....Term expires 1931
Philip Marvel....." " 1930
S. B. English....." " 1930
C. B. Smith....." " 1931

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark.....Term expires 1930
Edward J. Ill, Newark....." " 1931
J. Bennett Morrison, Newark.....Ex-officio
Andrew F. McBride.....Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*.....Term expires 1933
Paul M. Mecray....." " 1934
John Nevin....." " 1931
B. S. Pollak....." " 1930
H. Garrett Miller....." " 1931
Thomas W. Harvey....." " 1932
Elias J. Marsh, *Treasurer*.....Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton.....Term expires 1931
William G. Schauffler, Princeton....." " 1932
William D. Olmstead, Atlantic City....." " 1930
Andrew F. McBride, Paterson.....Ex-officio
J. Bennett Morrison, Newark.....Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Foman.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield
Frank R. Haussling.....Newark

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
C. L. Ulmer.....Gibbstown
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
George F. Dandois.....Wildwood
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
George B. Emory.....Morristown
James S. Green.....Elizabeth
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
Frank G. McCormack.....Englewood
B. C. McMahon.....Morristown
James P. Morrill.....Paterson
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
C. H. Schlichter.....Elizabeth
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark

GASTRON

Steadily advances in use and repute
As it becomes more and more widely known

GASTRON fortifies gastric digestion, relieving and correcting disorder of gastric function. It is also more and more employed as an accessory to other treatment—to enable the patient to get the maximum of nutrition, and to promote tolerance of remedies.

GASTRON—the acid-aqueous-glycerin extract of the entire gastric mucous membrane*—prescribed simply by the name GASTRON.

Samples, literature, upon request.

Fairchild Bros. & Foster
New York

*Alcohol free.

MOUNTAIN VALLEY WATER *from* HOT SPRINGS *Arkansas*

The Doctor's Preference for a Non-Irritating Diuretic

Mildly Alkaline -:- Natural -:- Pleasant Tasting

Mountain Valley can be consumed in quantity and relished. It is easily assimilated and a palatable agent for flushing all four of the emunctories.

Newark, N. J.
92 Central Ave.
MARket 8890

Mountain Valley Water Company
Distributing Branches in all Principal Cities

New York, N. Y.
142 E. 25th St.
GRAmercy 1666

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103. Act of Oct. 3, 1917, authorized July 29, 1918

Vol. XXVI., No. 11. Orange, N. J., November, 1929 Subscription, $3.00 Per Year Single Copies, 30 Cents

MEDICINE
NOV 17 1929
LIBRARY

CONTENTS

ORIGINAL ARTICLES— Page

The Subsequent History of 10,515 Tuberculous Patients Discharged from the State Sanatorium at Glen Gardner Between November, 1907, and June 30, 1928—Dr. Samuel B. English 711

Tuberculosis in Infancy and Childhood—Dr. B. S. Pollak 719

The Modern Treatment of Tuberculosis, with Especial Reference to Rest—Dr. H. R. M. Landis 723

Relapsing in Tuberculosis—Dr. Martin H. Collier 727

Differential Diagnosis of Pulmonary Diseases—Dr. John Lloyd 731

ORIGINAL ARTICLES— Page

Some Ideals and Standards in Children's Hospital Practice—Dr. Elmer C. Jackson 736

The Value of Common Laboratory Procedures in Diseases of Infants and Children—Dr. Royce Paddock 745

Relative Importance of the Fitting of Glasses in Ophthalmic Practice—Dr. Sidney E. Pendexter 748

The Importance of Cycloplegia in the Fitting of Glasses—Dr. Leighton F. Appleman 751

Fitting Glasses: From the Optician's Standpoint—Mr. J. C. Reiss 758

Continued on page VI.

ACHIEVEMENTS

Compound Syrup of
Calcreose

Alcohol 5 Per Cent
Each fluid ounce Represents:
Alcohol—24 Mins.
Chloroform Approximately 3 Mins.
Calcreose Solution 160 Mins.
(Equivalent to 10 mins. of creosote)
Wild Cherry Bark 20 grs.
Peppermint Aromatics and Syrup q. s.

Tasty, effective, does not nauseate.

Tablets
Calcreose
4 grains

Each tablet contains 2 grains of pure creosote combined with hydrated calcium oxide.

which meet your therapeutic requirements!

WHEN Maltbie made Calcreose available for the treatment of Bronchitis, Tuberculosis, Intestinal and Urinary Affections, the medical profession was given a product through which the full therapeutic effect of creosote could be secured even though the patient may have a sensitive stomach.

Calcreose is a loose chemical combination of pure creosote and hydrated calcium oxide. The creosote is slowly released from Calcreose and this provides a prolonged and effective action which is very helpful. Leading druggists carry Tablets Calcreose 4 grs. and Compound Syrup of Calcreose for prescription purposes. Samples gladly mailed to Physicians.

Maltbie Chemical Company, Newark, New Jersey

MALTBIE Calcreose

MEAD'S POLICY

MEAD'S INFANT DIET MATERIALS ARE ADVERTISED ONLY TO PHYSICIANS· NO FEEDING DIRECTIONS ACCOMPANY TRADE PACKAGES · INFORMATION IN REGARD TO FEEDING IS SUPPLIED TO THE MOTHER BY WRITTEN INSTRUCTIONS FROM HER DOCTOR WHO CHANGES THE FEEDINGS FROM TIME TO TIME TO MEET THE NUTRITIONAL REQUIREMENTS OF THE GROWING INFANT· LITERATURE IS FURNISHED ONLY TO PHYSICIANS·

FROM the beginning, Mead Johnson & Company have cooperated only with physicians, never advertising to the public, never enclosing descriptive literature with packages, never printing directions on packages, nor exploiting the medical profession in any way. For years, we have thrown all our resources in research, money and honor into keeping infant feeding where it belongs—in the hands of the physician. ¶ If, in this day of commercial meddling and gratuitous medical advice, the Mead policy is in the interest of the medical profession's own future, should it not have your whole-hearted active as well as passive support? Your use of Dextri-Maltose and other Mead products reflects your approval of this policy. Is it worth your while?

MEAD JOHNSON & CO., Evansville, Ind., U. S. A.—*the strictly ethical house*

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 11 ORANGE, N. J., NOVEMBER, 1929 Subscription, $3.00 per Year Single Copies, 30 Cents

SYMPOSIUM ON PULMONARY DISEASES

A group of papers read at the 163rd Annual Meeting of the Medical Society of New Jersey, Atlantic City, June 13, 1929.

THE SUBSEQUENT HISTORY OF 10,515 TUBERCULOUS PATIENTS DISCHARGED FROM THE STATE SANATORIUM AT GLEN GARDNER BETWEEN NOVEMBER 1907 AND JUNE 30, 1928

Samuel B. English, M.D.,

Medical Director of State Sanatorium, Glen Gardner, N. J.

The sanatorium at Glen Gardner has been in operation since November 1907. From that date to June 30, 1928, 10,515 patients have been discharged, 1832 for various reasons discontinued treatment in less than 30 days, and there remain for consideration 8683 patients who were suffering from active disease. Applicants were received from every county of the state and represent, due to the statutory regulations governing the institution, patients in all stages—hilum, minimal, moderately advanced and advanced—but giving reasonable prospects of improvement under sanatorium routine, while the 1832 patients discontinuing treatment in less than one month represent those unwilling to subject themselves to institutional routine—the pessimists, the homesick, or those who for other reasons discontinued treatment.

A tuberculosis sanatorium is a highly organized business concern whose chief business is the selling of plans for restoration of health. It is an expensive organization and must, particularly if supported by taxation, and is to merit continued support, justify its existence. Definite information as to the subsequent history of its ex-patients should, therefore, be considered rather than classification of immediate results. To expect patients to appreciate the necessity for any effort on their part to assist in the maintenance of such a record, unless a considerable background with sympathetic instruction is made while they are under our care, will be futile. Many patients, in spite of the sympathetic attitude, desire after discharge to have their period of sanatorium residence forgotten, but on the whole cooperation of ex-patients repays us for the cares and anxieties of their sanatorium residence.

Post-sanatorium records, if properly kept, are of inestimable value in that they are: (a) Better than usually considered. (b) An inspiration to the present patient population and to the institutional staff. (c) A means of spreading propaganda and arousing an increased health consciousness. (d) Tend to change the attitude of the general public and of patients. (e) Of assistance at appropriation hearings. (f) Show the difficulties of prognosis. (g) Demonstrate forcibly the advantages of a proper régime for the ex-patient.

*Read at the 163rd meeting of the New Jersey State Medical Society, Atlantic City, June 13, 1929.

(h) Remind the patient that the institution continues its interest in him. (i) Furnish a rough idea as to results of education and treatment. (j) Afford a means of comparison with the results of treatment obtained by similar institutions caring for a similar class of patients. (k) Show the short-comings of treatment after discharge from institutions.

Various means may be taken to secure this needed information. The first requisite is the securing of full and definite data from the patient while in the institution. In New Jersey we are fortunate in having a large number of local associations, very willing to coöperate and, excepting in the larger cities, these are organized on a county basis. We have at Glen Gardner, from the beginning, established the policy of tying up our work with these local agencies and most of our admissions are made through them; the family physician, however, being kept advised. Our efforts to secure post-sanatorium records from physicians have been almost barren of results. This is probably due to the fact that while discharged patients are advised to return to their physicians they fail to do so but do, in many instances, keep in contact with the local association either through its dispensary or visiting nurse service.

On our recent discharges, i.e., those of the current and recent years, we have secured information from these local associations every 3 months. For those patients discharged during the earlier years we annually ask the local agencies for information as to whether the individual has continued self-sustaining. For those living in territory not covered by such a local association we are forced to use the annual report slips, though generally this method is not fruitful of results. The establishment of monthly clinics in approximately 30 localities in the state has also helped to secure information concerning some patients. The Bureau of Vital Statistics of the State Board of Health allows us access to the files of death certificates, and this greatly assists at the end of the year after all other means have been exhausted.

Objections can be entered that many reports are not reliable, do not give proper interpretations, or that patients do not coöperate; that many prefer to conceal a previous institutional residence; that classification of institutions differ. These objections may all be true, but we believe that the presentation of after-results, dependent upon stages of disease rather than upon total discharges considered collectively, is conducive to an increasing interest of institution and patient in each other.

There have been discharged within the period indicated, with a residence in excess of 30 days, a total of 8683 patients, of whom 602 (7.1%) were recorded as suffering from hilum or juvenile tuberculosis; 2490 (28.7%) had minimal disease; 4322 (49.7%) were moderately advanced; 1269 (14.1%) were far advanced. These patients were all listed in accordance with the classification adopted by the National Tuberculosis Association:

Hilum. "The term hilum includes all tracheobronchial lymph-node tuberculosis. Hilum tuberculosis is a type of the disease usually found in children over 3 and under 12 years of age, but it may occur in adults, especially in nontuberculized races. It is a distinctive type in that the lesions are first found in the lymph-nodes about the trachea, the main bronchi and their larger subdivisions. It may involve the lymphoid tissue that is in close contact with the branches of the bronchial tree and later produce lesions in the adjacent tissue. It rarely involves the parenchyma of the lung to any extent. However, it must be recognized that hilum and pulmonary tuberculosis may exist separately or in combination."

Minimal. "Slight lesion or lesions limited in total volume to that above the second chondrosternal junction and fifth thoracic vertebra of one side. No serious tuberculous complications. Tubercle bacilli may be present or absent."

Moderately Advanced. "A lesion of one or both lungs, more widely distributed than under *minimal*, the extent of which may vary, according to the severity of the disease, from the equivalent of one-third the volume of one lung (consolidation or marked infiltration) to the equivalent of the volume of an entire lung

(infiltration) with or without evidence of cavity formation, cavities not to exceed in total diameters 2 cm. No serious tuberculous complications."

Far Advanced. "A lesion more extensive than under *moderately advanced.* Or definite evidence or marked cavity formation. Or serious tuberculous complications."

The hilum cases were negative for tubercle bacilli. Of the minimal cases, 613 were positive and 1877 negative for tubercle bacilli; or, 24.6% and 75.4% respectively. The moderately advanced were positive in 2869, (66.3%), and negative in 1453 (33.6%). The advanced cases were positive in 1248, (98.3%), while but 21 (1.7%) were negative. It will, therefore, be noted that approximately one-seventh of these patients had far advanced disease but presented on acceptance fairly good resistance. On the other hand, 85.9% were in those classes where fairly good results would be expected. Again, of the total reported, approximately 54% were positive for tubercle bacilli, while 46% were negative.

TABLE I.

Total discharged	10,515
Total discharged with a residence of more than 30 days, excluding second admissions, from October 25, 1907, to July 1, 1928.	8683
Positive	4730
Negative	3953

	Total	Percentage	Positive	Percentage	Negative	Percentage
Hilum tuberculosis	602	7.1			602	100
Incipient	2490	28.7	613	24.6	1877	75.4
Moderately advanced	4322	49.7	2869	66.3	1453	33.6
Far advanced	1269	14.1	1248	98.3	21	1.7

We have gauged our test of treatment not on the immediate or discharged results, but rather upon the subsequent history; and have also tried to determine after-results based on absence or presence of the tubercle bacillus. From previous studies at the Adirondack Cottage Sanatorium it would appear that the presence of bacilli forecasts a greater mortality in the proportion of 1½ or 2 to 1. Our results would appear to offer less promise to the positive case; our findings being 29.61% for the positive cases and 75.65% for the negative, about 1½ to 1; although in this study there are 1176 advanced cases located, and these figures cover a period of 20 years. Again, these figures show a better prospect when the different classifications are separately considered; the minimals, 60.25% positive, 79.64% negative; the moderately advanced, 33.04% to 66.13; while the advanced show 9% as against 16%.

PRESENT STATUS OF POSITIVE AND NEGATIVE SPUTUM CASES:

TABLE II

	Pos.	Pct.	Neg.	Pct.
Minimal, working	306	60.25	1192	78.64
Mod. adv. working	798	33.04	769	66.13
Advanced working	104	9	3	16.67
Totals, working	1208	29.61	2401	75.65

TABLE III

HILUM TUBERCULOSIS

	Total	Percentage	Positive	Percentage	Negative	Percentage
Total discharged	602				602	100
Total not located	125	20.76			125	20.76
Total located	477	79.24			477	79.24
Total working	437	91.62			437	91.62
Total unable to work	19	3.98			19	3.98
Total dead	21	4.40			21	4.40

The hilum cases present the best prospect for both the immediate and the future, as will be seen from Table III. Of the 602 patients treated, 477 are located, with 437, (91.62%) able to work after periods following treatment varying from 1 to 21 years have elapsed. It would appear that if, as some believe, our present methods have reached the maximum much can yet be accomplished in the juvenile or hilum cases by treatment and education.

TABLE IV

MINIMAL

	Total	Percentage	Positive	Percentage	Negative	Percentage
Total discharged	2490		613		1877	
Total not located	466	18.71	105	17.12	361	19.23
Total located	2024	81.29	508	82.88	1516	80.77
Total working	1498	74.02	306	60.25	1192	78.64
Total unable to work	114	5.63	39	7.67	75	4.94
Total dead	412	20.35	163	32.08	249	16.42

Of the minimal cases, 2024 out of 2490 patients were located; of whom 1498 (74.02%) were working; 306 (60.25%) being positive cases, while 1192 (78.64%) were negative.

TABLE V

MODERATELY ADVANCED

	Total	Percentage	Positive	Percentage	Negative	Percentage
Total discharged	4322		2869		1453	
Total not located	743	17.19	453	15.79	290	19.95
Total located	3579	82.81	2416	84.21	1163	80.05
Total working	1567	43.80	798	33.04	769	66.13
Total unable to work	204	5.69	152	6.30	52	4.47
Total dead	1808	50.51	1466	60.66	342	29.40

Of the moderately advanced cases, 1567 out of 3579 are working; of whom 798 (33.04%) were positive and 769 (66.13%) of the negative cases were working.

TABLE VI

FAR ADVANCED

	Total	Percentage	Positive	Percentage	Negative	Percentage
Total discharged	1269		1248		21	
Total not located	93	7.33	90	7.21	3	14.28
Total located	1176	92.67	1158	92.79	18	85.72
Total working	107	9.11	104	9.00	3	16.67
Total unable to work	37	3.14	35	3.01	2	11.11
Total dead	1032	87.75	1019	87.97	13	72.22

TABLE VII

	Total	Percentage	Positive	Percentage	Negative	Percentage
Total discharged	8683		4730		3953	
Total not located	1427	16.43	648	13.69	779	19.70
Total located	7256	83.57	4082	86.31	3174	80.30
Total working	3609	49.75	1208	29.61	2401	75.65
Total unable to work	374	5.15	226	5.52	148	4.66
Total dead	3273	45.10	2648	64.87	625	19.69

The far advanced cases usually present little prospect of permanent improvement. The series, however, shows 104 (9%) of the positive cases, and 3 (16.67%) of the negative cases still working.

Table VII shows that while for the period covered, i.e., from 1 to 21 years, 1208 (29.61%) of the positive, and 2401 (75.65%) of the negative sputum cases were working, there was a total of 1427 patients not located; of whom 648 (13.69%) were positive cases, and 779 (19.70%) were negative. Since all available sources of information, viz., the family physician, clinics, visiting nurses associations, and files of the Department of Vital Statistics, were consulted, we are led to believe that many of these non-located cases, if found, could be placed in the working columns and therefore improve these recorded results.

Most public health authorities believe that the sanatorium has fulfilled its obligation

when it has rendered assistance for a period of from 3 to 5 years following discharge, and we have in consequence prepared our figures to show the present condition of all patients leaving the sanatorium for the period from July 1, 1923, to June 30, 1928; of which there were 2876, with 425 discontinuing treatment within 30 days, leaving 2451 to be considered, and of these 1324 were positive and 1127 negative for tubercle bacilli. There were 169 (6.9%) hilum cases; 953 (34.9%) minimal cases; 1131 (46.1%) moderately advanced; and 198 (8.1%) far advanced; and as compared with the 21 year figures an increase in the minimal cases with a decrease of advanced cases is shown. This is perhaps as it should be. Education and better diagnoses increase early cases, while the congested condition of the institution excludes advanced cases. The hilum cases are all negative for tubercle bacilli; the minimal cases 22.7% positive and 77.3% negative; moderately advanced cases 80.5% positive and 19.56% negative; while the far advanced cases all had positive sputum. The percentage of positive cases in this series is 53% as against 54% in the large series, and 47% as against 46% negative.

5-YEAR PERIOD

TABLE VIII

Total discharged from July 1, 1923, to June 30, 1928		2876
Positive	1422	
Negative	1454	
Total discharged with a residence of more than 30 days, excluding second admissions		2451
Positive	1324	
Negative	1127	

TABLE VIII CONTINUED

	Total	Percentage	Positive	Percentage	Negative	Percentage
Hilum Tuberculosis	169	6.9			169	6.9
Minimal	953	34.9	216	22.7	737	77.3
Moderately advanced	1131	46.1	910	80.5	221	19.5
Far advanced	198	8.1	198	100	00	00

TABLE IX

HILUM TUBERCULOSIS

	Total	Percentage	Positive	Percentage	Negative	Percentage
Total discharged	169				169	
Total not located	5	2.95			5	2.95
Total located	164	97.05			164	97.05
Total working	154	93.92			154	93.92
Total unable to work	7	4.26			7	4.26
Total dead	3	1.82			3	1.82

TABLE X

MINIMAL

	Total	Percentage	Positive	Percentage	Negative	Percentage
Total discharged	953		216		737	
Total not located	15	1.57	6	2.77	9	1.22
Total located	938	98.43	210	97.23	728	98.78
Total working	823	87.75	144	68.58	679	93.28
Total unable to work	66	7.03	38	18.09	28	3.84
Total dead	49	5.22	28	13.33	21	2.88

These hilum cases, as in the larger series, again give most promise by treatment. Of the total 169, we located 164, and found that 154 (93.92%) were working—surely very gratifying.

Of the minimal, 938 patients were located; 823 are working; 144 (68.58%) being positive and 679 (93.28%) negative.

Of the 1062 moderately advanced cases located, 508 were working; 392 (45.91%) were positive and 116 (55.78%) were negative.

Of those having advanced disease, 188 were located and 49 (26.07%) were working. There were no cases negative for tubercle bacilli in this series.

TABLE XI

MODERATELY ADVANCED

	Total	Percentage	Positive	Percentage	Negative	Percentage
Total discharged	1131		910		221	
Total not located	69	6.10	56	6.15	13	5.88
Total located	1062	93.90	854	93.85	208	94.12
Total working	508	47.84	392	45.91	116	55.78
Total unable to work	111	10.45	89	10.42	22	10.57
Total dead	443	41.71	373	43.67	70	33.65

TABLE XII

FAR ADVANCED

	Total	Percentag	Positive	Percentage	Negative	Percentage
Total discharged	198		198			
Total not located	10	5.05	10	5.05		
Total located	188	94.95	188	94.95		
Total working	49	26.07	49	26.07		
Total unable to work	22	11.70	22	11.70		
Total dead	117	62.23	117	62.23		

TABLE XIII

	Total	Percentage	Positive	Percentage	Negative	Percentage
Total discharged	2451		1324		1127	
Total not located	99	4.03	72	5.43	27	2.39
Total located	2352	95.97	1352	94.57	1100	97.61
Total working	1534	65.23	585	46.73	949	86.28
Total unable to work	206	8.75	149	11.90	57	5.18
Total dead	612	26.02	518	41.37	94	8.54

Table XIII shows that for the 5 year period 949 (86.28%) negative, and 585 (46.73%) positive sputum patients were working; a total of 65.23%.

Again, a comparison of the final tabulation of the 5-year as against the 21-year cases show that at the end of 5 years 65.23% of the patients are working, and at the end of 21 years this number has fallen to but 49.75%, demonstrating again that the patient's most difficult period is experienced during the first 4 years following discharge. If this period can be safely bridged, the most strenuous period of care is passed.

These figures emphasize the advantages of early diagnosis and show that the patient's expectancy of life is usually in inverse proportion to the stage of his disease. We have also endeavored to compare the normal expectancy of life of the average run of the population with our discharged located patients. The average age of our patients was 26 years. The number living as of June 30, 1928, as compared with the expectancy of normal individuals of equal age, for a similar period of years, viz., from November, 1907, to June 30, 1928, is shown in Table XIV. Table XV shows the total of patients living as compared with expectancy of life of normal individuals. Table XVI shows percentage of patients of various stages of disease now living as compared with life expectancy of normal individuals.

TABLE XIV

CLASSIFICATION BY YEARS OF DISCHARGED PATIENTS AS COMPARED WITH EXPECTANCY OF NORMAL PERSONS

	Hilum or Juvenile			Minimal			Moderately Advanced			Far Advanced		
Period of Discharge	Located	Living	Expectancy	Located	Living	Expectancy	Located	Living	Normal Expectancy	Located	Living	Normal Expectancy
7-1-27 to 6-30-28	59	59	58.63	176	176	174.88	215	205	213.63	26	23	25.83
7-1-26 " 6-30-28	49	47	48.25	197	187	193.97	178	113	175.26	6	2	5.10
7-1-25 " 6-30-28	33	32	32.60	223	215	218.82	204	134	200.18	12	5	11.78
7-1-24 " 6-30-28	3	3	2.93	160	144	156.16	217	122	221.46	49	13	47.83
7-1-23 " 6-30-28	48	48	47.49	92	79	89.16	231	136	223.88	56	16	54.27
	192	189	189.90	848	801	832.99	1045	710	1034.41	189	59	144.81
7-1-22 " 6-30-28	2	2	1.92	106	99	101.97	293	165	281.87	39	12	37.52
7-1-21 " 6-30-28	27	26	25.81	30	24	28.68	328	195	313.57	25	4	23.90
7-1-20 " 6-30-28	30	27	25.62	75	47	71.17	158	73	149.94	87	14	82.56
7-1-19 " 6-30-28	38	36	36.79	114	62	107.35	196	73	184.57	47	6	43.26
7-1-18 " 6-30-28	52	34	48.54	89	59	83.07	186	56	173.60	46	1	42.93
	149	125	138.68	414	291	392.24	1161	572	1103.55	244	37	230.17
11-1-17 " 6-30-28	31	28	28.74	106	72	98.26	140	52	129.78	45	4	41.71
11-1-16 " 6-30-28	36	34	33.12	114	89	104.88	186	73	171.12	68	6	62.56
11-1-15 " 6-30-28	24	21	21.91	74	57	67.56	187	75	170.73	83	11	75.78
11-1-14 " 6-30-28	13	12	11.76	52	32	47.06	193	73	174.67	113	10	102.27
11-1-13 " 6-30-28	12	11	9.87	51	36	45.75	139	44	134.43	74	3	66.38
	116	106	105.40	397	286	363.51	845	317	780.73	383	34	348.70
11-1-12 " 6-30-28	12	7	10.68	55	37	48.95	186	54	164.54	66	4	58.74
11-1-11 " 6-30-28	6	6	5.28	64	44	56.32	140	41	123.20	78	3	68.64
11-1-10 " 6-30-28	8	8	7.01	64	38	56.11	125	32	109.58	106	4	92.93
11-1-09 " 6-30-28	9	6	7.72	76	40	65.14	108	27	92.57	44	2	37.72
11-1-08 " 6-20-28	3	3	2.55	64	37	51.29	89	20	75.50	53	0	44.96
	38	30	33.24	323	196	280.81	648	174	565.39	347	13	302.99
11-1-07 " 6-30-28	0	0	0	13	2	10.81	48	8	40.29	57	0	47.84

If but hilum, minimal and moderately advanced cases are covered, 61% are living, while 94% should be living. Our patients, therefore, alive are 65% of the life expectancy of normal individuals.

It must be admitted that all sanatorium patients do not, for obvious reasons, approach a cure, but the satisfaction of work well done, coupled with the knowledge that shelter, comfort and happiness, as the result of the interest of the state in the behalf of its people, are being afforded, gives one the desire to continue.

TABLE XV

SHOWING TOTAL OF ALL PATIENTS LIVING AS COMPARED WITH EXPECTANCY OF LIFE OF NORMAL INDIVIDUALS

	Hilum			Minimal			Moderately Advanced			Far Advanced		
Period of Discharge	Located	Living	Normal Expectancy	Located	Living	Normal Expectancy	Located	Living	Normal Expectancy	Located	Living	Normal Expectancy
7-1-23 to 6-30-28	192	189	189.90	848	801	832.99	1045	710	1034.41	189	59	144.81
7-1-18 " 6-30-23	149	125	138.68	414	291	392.24	1168	572	1103.55	244	37	230.17
11-1-13 " 6-30-18	116	106	105.40	397	286	363.51	845	317	780.73	383	34	348.70
11-1-08 " 11- 1-13	38	30	33.24	323	196	280.81	648	174	563.39	347	13	302.99
11-1-07 " 10-31-08	0	0	0	13	2	10.81	48	8	40.29	57	0	47.84
	495	450	467.22	1995	1576	1880.36	3747	1781	3522.37	1220	143	1074.51

SHOWING PERCENTAGE OF PATIENTS OF VARIOUS STAGES OF DISEASE NOW LIVING AS COMPARED WITH LIFE EXPECTANCY OF NORMAL INDIVIDUALS

TABLE XVI

	Located	Livin	Normal Expectancy	Per cent Living	Per cent Normal Expectancy
Hilum or Juvenile	495	450	467.22	90	94 2/5
Minimal	1995	1576	1880.36	79	94
Moderately Advanced	3747	1781	3522.37	47.6	96
Far Advanced	1220	143	1074.51	12	88
	7457	3950	6944.46	53%	93%

TUBERCULOSIS IN INFANCY AND CHILDHOOD*

B. S. Pollak, M.D., F.A.C.P.,

Medical Director, Hudson County Tuberculosis Hospital and Sanatorium, Secaucus; Physician-in-Charge, Tuberculosis Division of the Jersey City Hospital, Jersey City; Attending Physician, Deborah Consumptive Sanatorium, Brown's Mills-in-the-Pines; Consultant Phthisiologist, Bayonne Hospital, Bayonne; Christ Hospital, Jersey City; St. Mary's Hospital, Hoboken, and Beth Israel Hospital, Newark, New Jersey.

Careful investigation on the part of the National Tuberculosis Association reveals the fact that, notwithstanding all the educational propaganda introduced in recent years, the great advance in methods of diagnosis, and the emphasis placed upon the necessity for early diagnosis, some 70% of all patients now seeking admission to the sanatoriums have the disease in either a moderately or far advanced form. This fact led the National Tuberculosis Association to stress early diagnosis of tuberculosis in school children who manifestly were carriers of tuberculosis and whose condition was being overlooked because of the existing erroneous opinion that tuberculosis in childhood is rather rare. Extensive research, carried on by many investigators both here and abroad (notably Chadwick of Massachusets, and Rathburn of Cataraugas County), has had a tendency to cause a halt in the minds of those who had previously paid but little attention to the tuberculous child.

Adequately to comprehend the present day concept of tuberculosis, we must retrace our steps to fundamentals and recall the theory of childhood infection, now generally accepted. Mankind, in the natural course of events, is subjected to first infection by tubercle bacilli of a quantity and virulence that can be held in check or completely overcome. Presumably all such relatively ineffective bacilli arouse the body to anatomic changes of some degree. There certainly take place first infections which, through the reproduction of countless generations of descendant bacilli, hold through out the term of an ordinary life, yet never transgress the bounds of clinical nonactivity.

No doubt, there also occur numerous first infections of limited duration, set up by a few germs, which disappear and leave the body again tubercle free. Those first infections that, sooner or later, make themselves felt as processes that become progressive or have got beyond recall, are of course only a fraction of all first infections, but, whatever the type of tuberculous infection that resides within a man, his individual resistance is increased by it. Among our older civilizations there is an increasingly large number of people who receive, in the ordinary course of affairs from birth to adult age, tuberculous infection. These are of such a type that fully three-fourths, or even more, are never made ill by the infection. It must result, then, that the larger part of mankind is given greater resistance to tuberculous infection and its further extension than it enjoyed at birth; that this resistance is increased within the space of individual lives, and that between birth and maturity the number of more resistant persons is, actually and relatively, greater at any given age than for earlier years. It is beyond dispute that, with everything else equal, the two natural circumstances of immunity through infection and of mounting incidence of infection with advancing age, combine to make more persons at 20 years more resistant to tuberculous infection than at the age of 15, more at 10 than at 5, and so on. The adult is, then, more resistant than the child and yet, clinically, we find relatively less tuberculous disease in children.

Time does not permit full consideration of the circumstances responsible for this state of affairs, but we may note that it has been customary to ascribe this favored situation of the child to environmental differences. Stress is a powerful determinant of active tuberculosis. "The adult suffers much and the child, little." (Kraus)

However, although it is popularly believed that incidence of tuberculosis in infancy is relatively low, all of us have observed that during the period from 3 to 7 years of age,

*Read before the New Jersey State Medical Society at Atlantic City, June 13, 1929.

children become gradually more and more infected and at puberty it may well be assumed that children are more or less generally infected, depending upon the milieu. Does such infection lay dormant within the body and assert itself at a later period as tuberculous disease? It would seem that the opinion expressed by von Behring, "Phthisis is the end of a song sung over the cradle of an infant," has substantial authority, although there are those who have not as yet wholly adopted this view. Pottinger, for instance, says that tuberculosis is believed in nearly all instances to be an extension of a prior infection which took place in childhood but failed to heal; yet Opie differs entirely with this view.

We have been inclined to the theory that infection usually occurs in childhood, establishes itself as a primary focus in the parenchyma of the lung and confers upon the child a certain immunity throughout life; this is recognized as the theory of Ghon. More recently, however, Opie has contended that this early infection does not always confer immunity and that reinfection (exogenous or endogenous) does occur. It might be stated that, while experience indicates that infection in childhood does occur and does not manifest itself later in life as actual tuberculous disease (thus undoubtedly conferring immunity), it is equally apparent that infection in early infancy, when resistance has not had an opportunity to be established, may at once cause active clinical disease. Herein may lie the explanation of the fact that the mortality rates in infancy are as great at 35, when adult tuberculosis takes its greatest toll from human life. It is certain, then, that diagnosis of infantile tuberculosis is of highest importance in relation to the entire problem of tuberculosis, not only as a matter of scientific interest, but also for its practical bearing on social and individual prophylaxis. While diagnosis of tuberculous disease in the adult is not always easy, it is beset in the infant with innumerable difficulties and sometimes becomes an almost insurmountable task.

Two important factors deserving consideration at this point are heredity and predisposition, both of which might well merit an entire session for discussion. We believe that we may affirm the now pretty well established fact that tuberculous impregnation of a healthy infant by a tuberculous mother is an hypothesis which cannot be verified by experience; no more can hereditary predisposition be demonstrated. How then may we proceed in our attempt to make a diagnosis of infantile and childhood tuberculosis? One of the outstanding points is an accurate and complete history; particularly important are details leading to the possibility of exposure of the infant or child in question to an open case of pulmonary tuberculosis. This information need not necessarily be confined to the immediate family or household, but may assume a much broader lattitude, for often we find no evidence of occult tuberculosis in the immediate environment, but have no difficulty in tracing infection to some distant relative, friend, maid, nurse, or what not.

Considering our problem academically, we then come to inspection and here we are frequently confronted with information that is helpful in solving a most difficult problem. There are some outstanding stigmas that may be considered in diagnosis of tuberculosis in infancy. They are: very atypical facies, large lusterless eyes, hairy back, fretfulness, petulancy, and the unsmiling face. The ordinary diagnostic methods are not entirely available for infants and children; particularly is their application limited in dealing with infants. In considering symptomatology, we usually have a history of frequent colds and coughs; attacks of unexplainable fever and enteritis.

Tuberculous enteritis is not easily recognized in infancy. The irregular fever deserves special emphasis. Occasionally we have loss of weight, but this does not always apply for we have seen many robust, rosy cheeked children whose roentgenograms have indicated marked tuberculous disease with caseation and cavitation.

In general we may say that this about summarizes the symptomatology, as far as physical signs are concerned. They do not include any notable stethoscopic evidence, hence tuberculosis is very often overlooked, whereas upon

light percussion one can often very easily distinguish abnormal signs, which are more or less characteristic. Particularly if the chest is percussed from base to apex, one frequently finds a paravertebral dulness which many authors look upon as being as significant in infancy and childhood as the crepitant râle heard at the apex in adult phthisis.

Experience in diagnosis of tuberculosis in childhood has demonstrated that tuberculous lesions have ofttimes been overlooked, as indicated by the roentgenogram, where even cavities have not been diagnosed; this has caused the now prevalent opinion that childhood tuberculosis can be recognized first by the specific tuberculin test, and secondly by the roentgenogram.

The most practical tests now in vogue are the subcutaneous test, by the late Clement von Pirquet, and the intradermic test of Mantoux, prepared by taking 0.1 c. c. of old tuberculin to 100 c. c. normal salt solution, thus making 0.1 c. c. equal to 0.1 mg. tuberculin. In an infant, .05 c. c. of this solution is sufficient; in childhod, 0.1 c. c. may be used; this may be increased to 0.5 c. c.

Readings are made every day for a period of 5 days. Personally, we have used the Pirquet test upon many thousands; however, Hende Smith believes that the Mantoux test lends itself to quantitative testing.

It is important to remember that acute infectious diseases are apt to prevent the appearance of the characteristic tuberculin reaction. This applies to both tests. The experience of these tests is of course appreciated and we merely mention them in passing.

In so far as x-rays are concerned, we are all pretty well agreed that they furnish us with valuable information and are our greatest ally; their importance cannot be overestimated and it cannot be sufficiently emphasized that frequent serial roentgenograms will practically always help in diagnosis and are a material aid in prognosis.

The general subject of "Tuberculosis in Childhood" is not difficult of solution when manifested as disease of bone, joint, skin, lung, etc., but becomes increasingly difficult when such manifestations are absent. One of the principles which dominates all clinical tuberculosis is the state of latency. (This term is somewhat ambiguous and is mentioned because it is generally recognized, although Allen K. Krause recently maintained it to be a misnomer.) We desire to deal with this type of tuberculous manifestation apart from the previously considered clinical forms.

The general conception of latency is still most obscure; we interpret it simply as the absence of every symptom of the disease, the seat of a primary focus being known or ignored. This definition is applied to all individuals in whom existence of the disease is revealed only by the tuberculin test.

After the first year, latent forms of infantile tuberculosis are encountered with increasing frequency. Very often the latent period is preceded by slight attacks of tuberculosis which pass unperceived. In other cases latency constitutes the favorable issue of lesions well localized and clinically well defined. The clearest clinical expression of infantile tuberculosis is the tuberculotoxic syndrome, malnutrition functional disorders and properly named toxic symptoms. At a more advanced age of childhood, there are other general phenomena analogous in all points to this tuberculotoxic syndrome but due to entirely different causes, and so, following a positive dermal reaction, we are often falsely led to establish a relation of cause and effect between the toxic symptoms and the infection and to diagnose erroneously an active lesion when, in reality, only a latent infection exists. It is necessary in these cases to utilize all resources that can clear up diagnosis. This can easily be confirmed or denied by the positive or negative history of contact. When the tuberculous focus escapes our investigation, the activity of the process can only be ascertained from the toxic symptoms. Toxins (which are really proteins) can exercise a stimulating action on the tissues, acceleration of nutritive changes, of physical growth and of psychic evolution; but, when this stimulating action exceeds the physiologic powers of reaction of the tissues,

it exercises a paralyzing and destructive action which is revealed by diverse pathologic symptoms.

In toxic forms of tuberculosis, the symptoms are not simply related to the intensity and extension of the local lesions, but depend as well on the organic predisposition, taken in its widest sense. In certain cases nervous symptoms predominate (excitability, depressions, changes of humor, troubled or interrupted sleep, etc). In others, alterations of the digestive functions are noted, and in still others symptoms of anemia and general feebleness. Consequently, the clinical picture is essentially variable; sometimes the infant is nervous; sometimes it is thin and pale, with a fine almost transparent skin, slight breathlessness on the least muscular effort, and presenting signs of cardiovascular irritation (arhythmia, instability of the pulse, and vasomotor changes), often accompanied by a more or less marked dyspepsia. Other infants are indolent. Finally, in other cases is noted only a tendency to paroxyms or to intermittent and irregular febrile periods.

In nurslings, changes in the digestive functions chiefly predominate, which may range from a simple decrease, or arrest of increase, in weight to serious symptoms of hypothrepsia or athrepsia. These extreme states of malnutrition are difficult to differentiate from those due to other causes, especially as the dermal reaction is usually negative owing to lack of allergy, and x-ray examinations do not give appreciable results. With so much the greater care, therefore, will one seek the source of contagion and be forced to exclude purely alimentary causes.

In so varied a tableau of tuberculous intoxication, certain symptoms have a more characteristic value than others but all are not present. In this respect I recall the facies of peripheral vasodilatation noted by Combe, the great irregularities in the temperature curve and, most important of all, the emaciation and loss of weight. A stringent differential diagnosis should be made of all the morbid symptoms possibly due to tuberculous intoxication; all the causes able to produce analogous symptoms in the infant should be examined, the tuberculin test applied and its specificity thus established.

This form of tuberculosis in which the focus escapes clinical observation is particularly stressed for obvious reasons. Our present knowledge of the general subject of tuberculosis gives us to-day a clearer understanding of tuberculosis in infancy.

It was formerly held that infantile pulmonary tuberculosis was represented by the most acute forms, such as miliary dissemination and diffuse caseous lesions, the progress of which was very grave. At the present time we have a better understanding of the situation; we realize the existence of what has been recently diagnosed as childhood type tuberculosis, essentially different from adult apical tuberculosis, which manifests itself around the primary focus and extends to the glands, undergoes the various stages of tubercle development and is finally arrested or absorbed, leaving the child practically free from tuberculous disease.

Having a better understanding of the pathology, its progress and ultimate disposition we are able to affirm with more or less security that the prognosis of childhood tuberculosis is much more favorable than our earlier conception of the acute type of the disease led us to hope for. Statistics seem to indicate a larger percentage of children infected with tuberculosis than was formerly supposed to be the case. This fact has necessitated an active campaign against tuberculosis all along the line and has developed machinery adequately to attack the problem which is best expressed by the slogan, adopted for our next year's campaign, "Guard the child and save the adult."

THE MODERN TREATMENT OF TUBERCULOSIS, WITH ESPECIAL REFERENCE TO REST*

H. R. M. Landis, M.D.,
Philadelphia, Pa.

The title of this talk that I have to present might better be, "The Disposition of the Patient with Tuberculosis After the Disease Has Been Recognized".

I should say off-hand that 7 out of every 10 people who come to see me already know they have the disease. The diagnosis has been made but their problem lies in knowing what to do with it. Very often the doctor who has recognized the disease is in a quandary as to just what disposition should be made of this particular patient. More often than not the patient comes saying that he has been told by a green consultant that he has the disease and is given advice that is entirely beyond his means to accept. I think there is a tremendous lack on the part of physicians in considering what one may term the background of the patient. If a man or woman goes to the doctor and he or she has tuberculosis, the doctor very often will give advice without the remotest idea of what the individual's social or financial background is, and particularly the financial background. He is, therefore, giving advice that is totally out of the patient's power to carry out. It seems to me that this is particularly the difficulty among the consultants who have a clientele that is made up of the rich or the well-to-do. They get in the habit of advising their patients to carry out certain procedures, go to certain health resorts, and they take no account of the stray patient who is not backed with financial means to carry out any such program.

The first thing I ask the patient, if he came in to know what he should do or if he came in to find out if he had the disease, is, "How much money have you got?" Naturally that would be the first question. (Laughter). As a matter of fact, in advising one of these patients, providing you don't happen to know them personally and don't know their circumstances, that is the very first thing you have to find out. There is no use, in the case of a man who has a wife and a couple of children, who has a little money saved up and whose salary may be carried on for awhile—say a salary of $200 a month—in telling that man if he expects to get well he must go to Colorado Springs or he must go into the Southwest or he must go to some distant place. Very often I have known patients to be given advice of that sort and they didn't have money enough to get as far as Pittsburgh, to say nothing of the places where they could be cured. As a matter of fact, they have grown desperate, not knowing what to do, and upon being told that if they expect to get well they must go to one of these places, they very often do go and they will land 2000 or 3000 miles from home with no resources.

Of course, everybody is familiar with the cries of protest that come up quite constantly from these localities about the indigent consumptive that goes out there without the slightest means of obtaining a cure or of carrying on his treatment. Of course, back of that is this question of climate. One would think, with the 25 years that have elapsed since the tuberculosis crusade began, that everybody would have a pretty reasonable understanding of the climatic situation, but there are still a tremendous number of lay people and far too many doctors who have a tremendous faith or belief that there is something in some climate that will produce results and that you can get better results in this climate or that climate than you can in the locality in which you happen to live. Twenty-five years ago any such figures as Dr. English has shown here this morning and the idea that a large number of people with tuberculosis could be cured in the environment in which they developed the disease were unheard of. They all had to be sent to some far distant point. When one analyzes these various health resorts, one finds such tremendous diversity that one naturally gets very skeptical as to what influence climate really has.

*(Read at the annual meeting of the Medical Society of New Jersey, June 13, 1929.)

You have the advocates of the high and dry climate—5000 to 6000 ft. elevation; the advocates of perpetual sunshine and dryness with no elevation at all, such as is found in Arizona; the advocates of places characterized by extreme cold during the winter months; advocates of every variation of which you can conceive. There was a time when the thing to do was to charter a yacht and take a long cruise; many years ago that particular thing was done. There are people obsessed with the belief that the desirability of the place is in proportion to its distance from the place in which you got the disease; that is where some of the cruelest things that I know of are done in advising the tuberculosis patient. If the people have the means, if the family as a unit have the means, to migrate to some one of these distant places I have no particular objections, but when one member of the family is sent across the continent all by himself it works a tremendous hardship on both the family and the patient. I remember very well that two years ago the son of one widow had married the daughter of another widow and about simultaneously it was discovered that they both had tuberculosis, and a well-meaning consultant sent them down to New Mexico. They had moderate means; neither one of these widows was wealthy. The result was things were happening. The husband or the wife would write and both mothers would naturally get the information and for a year those women were in a perpetual state of being upset by reason of disturbing letters. They said to me: "Isn't there some place else besides New Mexico where they can be cured?" I said: "You can do it right here in Philadelphia, if you want to". But they had that thing instilled in them to such an extent that they felt if they brought this son and daughter back from this place to Philadelphia, or some place near Philadelphia, they probably couldn't or wouldn't get well because they had been deprived of the advantage of this wonderful climate.

I think everybody is agreed that the sanatorium is by all odds the best place for a tuberculosis patient to go; or the patient should go to a place where sanatorium treatment can be approximately carried out.

Here is another type for you. We are constantly being dragged down by what becomes tradition. Twenty-five years ago there were perhaps a half dozen sanatoriums in this country. The number of people demanding admittance was tremendous. They had a rule formulated about that time that a 6 months' stay was the limit. If you got well in 6 months or if you were at the end of 6 months in the same condition as when you entered, you were discharged anyway to make room for somebody else. Today we have reached a point where pretty generally, all over the country, we have adequate facilities; Pennsylvania, however, is far short of adequate facilities. There is a constant waiting list of 600 or more people involving a wait anywhere from 3 to 4 months. But, generally speaking, there is no reason why this rule of a 6 months' stay should be carried out any longer. My belief is that a patient with tuberculosis—I am speaking now of the ones that offer a chance of recovery—should be taken into the sanatorium and kept until he is well. The patient may recover anatomically in a period of 8 months. On the other hand, a patient who at first presents exactly the same sort of condition may require 15-18 months before he will get an anatomic cure.

I think the biggest pitfall which we face today—certainly I am constantly stubbing my toes in that direction—is that we see a patient for the first time and we are skeptical as to what is going to happen. You send the patient to a sanatorium and put him in bed. After 6 weeks or 2 months, practically all of the symptoms have disappeared. He has no fever; his temperature is normal; pulse rate normal; he may have put on 15-20 lbs; his cough has disappeared. Then, clinging to what you did 20 or 25 years ago, you get optimistic and you begin pushing things along, urging this patient forward to the time when he can be discharged, when, as a matter of fact, that is the type of case on which you should put the thumb screws down tighter than ever. That is the type of case you ought to make every effort on because that is the

one that offers, in the end, if you have patience enough and will keep that patient at rest long enough, a complete anatomic cure. There is nothing so deceiving as the so-called symptomatic cures where the patient is cured of symptoms in a matter of a few months and where the lesion in the lung is just exactly where it was when he started. After all, what you are after is an anatomic cure and not a symptomatic cure.

As the years go on, I become more and more pessimistic in one direction and more optimistic in the other. I am extremely pessimistic that any patient, I don't care how slight the lesion, will get well in less than a year. By "get well" I mean "well" in the strict sense of the word. I am getting extremely optimistic that many of these cases—most of them and probably all of them—that improve will go on to a complete cure if you can keep them long enough, but that may run it up to 2 or 3 years. If you want an illustration of exactly what the time element means, take the results obtained in the nonpulmonary tuberculosis cases—joint tuberculosis, peritonitis, bone tuberculosis. Consider bone tuberculosis under treatment 18 months, 24 months, 3 years, and where heliotherapy is getting all the credit. As a matter of fact, it is prolonged rest that those patients are subjected to that I think is largely responsible for the results, and there is where the men dealing with pulmonary cases can learn an extremely important lesson; and that is the prolongation of the rest period up to a time where you have evidence that denotes fibrous changes; in other words, that the lesion is not remaining soft and unchanged; it is retrogressing and you have the picture of scar tissue; very often you have cavities that shrink to a point where they almost disappear.

Rest, of course, is carried on in a much better way in a sanatorium than any place else for the reason that a patient put into a well-conducted sanatorium, that has at heart what rest means, will fall into the routine automatically and learn by actual experience what an infinite amount of patience will not accomplish if you try to take care of that case in isolation. But, on the other hand, speaking of backgrounds, as a matter of fact, practically, you are constantly meeting people who for one reason or other can't go to a sanatorium—they either can't get into one or there is a certain combination of circumstances that makes it almost impossible to induce them to go. If those patients have the proper environment and can be put to bed and kept there, it is amazing how well they will do.

There are just 3 things that count in the treatment of these pulmonary cases: an infinite amount of patience; no restrictions as to time; and, too often, the pocketbook. And the pocketbook enters into it no matter where you turn. Granting that a man can be sent to a sanatorium that costs him nothing, there is the money problem at home. Very often he has a wife and a couple of children who have to be cared for and the urge on his part is to get back and take up his work so he can properly take care of his family. I don't know how many hundreds and hundreds of people I have seen in the 25 years I have been connected with the sanatorium that unquestionably have lost their chance of getting well through an inadequate pocketbook.

There is another thing. I have lived through the whole cycle. I have lived through the cycle when sanatoriums, many of them, prided themselves on conducting the institution with an overhead that was almost negligible, where tasks of all sorts and descriptions were done by patients, patients that were undergoing cure. These tasks ran all the way from relatively light tasks to those involving a considerable amount of physical labor. Of course, there are some of you here who remember Paterson's work in England where he evolved this remarkable plan of using work as the therapeutic test. He had his patients digging trenches and laying stone walls, using little shovels and picks to start with and gradually working up. At White Haven, we went through that, not with that great amount of refinement that he did, but there was a time when only 3 people on that mountain were paid a salary. Today there is a paid employee doing work around there for every 2½ pa-

tients. In other words, there isn't a single solitary task done by a patient who is under treatment.

I firmly believe this: a man or woman who has a tuberculous lesion has one of the hardest jobs in the world and that is the job of getting well, and a large percentage of them are not going to get well if you are taking them away from rest and putting them at tasks in order to cut down your overhead expenses. There isn't a single phase of public health work of which I have any knowledge in which economy should have any part. I don't mean there should be wild-eyed extravagance but there is no use in trying to protect human life, either as a means of preventive medicine or a matter of curing individuals that you are more or less certain will get well, if you haven't the time to do it. It is a terrible situation when you sit down and think of the man or woman that you know can get well and will get well providing somebody doesn't tell you that you have 6 months or 8 months to do it in, and maybe at the end of 8 months you haven't gotten anywhere but if you only had 4 months more, maybe that 4 months is just the time that will tell the story.

That of course brings up another thing, where sanatorium men are put to a tremendous amount of difficulty by physicians on the outside. The physician on the outside may know the family and he wants to ease the blow as much as possible. He wants to make it as easy for the patient as possible and he very often gives as an excuse: "They wouldn't go away if I didn't tell them that". There is nothing that causes more difficulty than to have the physician say: "You go up to the sanatorium and you will be all right in 2 or 3 or 4 months". Then when they get up there and they are not a bit better at the end of 3 months, the trouble begins for the man in charge of the sanatorium and he is the one who has to tell them that they have no more chance of getting well in 4 months than anything in the world and they are lucky if they are going to get well in a year. I have thrashed this out a good deal. I have tried to ease the burden a little now and then, and it made it a little easier for me in the beginning but I only got it later. I have come to the conclusion that any man or woman who thinks he or she has tuberculosis and comes in to find out about it might just as well be told "yes" right then and there. In proportion to the amount of damage, you can sit down and tell the patient approximately when he will get well. You can be reasonably sure he is not going to get well and stay well under a year. He may get out in 8 months, and if he does, he is that much to the good but the majority of them are going to take a great deal more time.

There is a young doctor at White Haven now who had a hemorrhage as an intern about 6 months ago. He had absolutely no symptoms. He had râles at the top of his lungs and a few tubercle bacilli; no cough and no expectoration. We put him to bed for 3 months and the understanding was that when he got in shape he would become one of the acting resident physicians. At the end of 3 months there wasn't the slightest symptom that there was any danger whatever in his getting up. He had another hemorrhage a week ago and he has an extension of his trouble. Now we have to start in where we ought to have started 6 months ago and kept him right at it. If he had been kept in bed for 6 months and been kept on a modified rest treatment for another six months, there wouldn't have been anything to worry about. Half-day duty after treatment for 3 months was enough to pitch this thing over.

Rest is probably the one agent, of all things that have been talked about as a cure for tuberculosis, that has stood the test of time, and the only one we can rely on today. Exercise has absolutely no place in the treatment of tuberculosis during the active stage and for a long, long period after that disease has become inactive. The whole guide as to whether you are going to give the patient anything to do is whether you have an anatomic cure, and not whether the patient is free from symptoms.

I would urge, on the part of the men who are out on the firing line and who see these patients for the first time, that they familiarize themselves somewhat more with the individual's background and do not advise patients who have a very limited pocketbook to attempt to go to some place that is beyond their means. Very often, in sheer discouragement, they give up and say—"It is no use". Another thing: Don't promise them that they are going to get well in a matter of 2 or 3 or 4 months; that all they have to do is to go a sanatorium. I have had patients come in to me with a moderately advanced disease, with a cavity, who have been assured that in 3 or 4 months they would be back at work perfectly well. That is cruel to the patient and in the end it gets everybody in trouble because just as sure as you tell the patient that and he goes to a sanatorium and finds out differently, he is going to harbor a grudge. In so far as you can, keep the patient as near to where he lives as possible. That is becoming more and more a thing that can be done. We have gotten over the idea of building the state central sanatorium making it necessary for patients to travel for hours in order to reach it. We are getting to the point where in Connecticut, I think, there are 6 or 7 santoriums dotted at suitable places in that state, which, of course, is relatively small. There isn't a state sanatorium in Connecticut that cannot be reached by a patient or a member of a patient's family within 1 or 2 hours. That means a great deal in getting people well. It keeps them in touch with home and makes them willing to stay longer and, as you can see from Dr. English's figures, the proportion of people you get well and who stay well is in proportion to the length of the time you can keep them. Of course, some patients get well in 2 or 3 months but if he had kept every one he had only for 2 or 3 months, he would have some pretty sad figures to show instead of some very remarkable ones as far as minimal cases or even the more advanced cases are concerned.

RELAPSING IN TUBERCULOSIS.*

Martin H. Collier, M.D.,
Lakeland, New Jersey

The two outstanding characteristics of tuberculosis are chronicity and tendency to relapse, the latter depending in a great measure on the former; for it follows that any disease in which convalescence is prolonged will relapse more frequently than one in which convalescence is short.

Relapses may be due to some indiscretion, overwork or overplay, childbearing, intercurrent disease, disregard of lessons learned in the sanatorium, or a return to unhygienic surroundings. In the great majority of instances, however, it is due to treatment not having been carried over a sufficient length of time.

We are all familiar with the terrible death rate due to tuberculosis, still too large despite the decided cut that has been made during the last decade—a reduction of more than 50%. Many factors were operative in bringing about this reduction, but chief among them was the educational campaign of the National Tuberculosis Association. Certainly, if we can reduce the number of relapses there will be a further reduction in death rate, for each time an individual presents himself for further treatment his disease is in a more advanced stage and, therefore, less likely to respond to treatment. It is almost axiomatic that this disease will respond to treatment in 80% of early stage cases, while the outlook is not so favorable in more advanced stages.

An absolute cure of tuberculosis by absorption of the lesion or by complete calcification is so rare as to be classed with the medical curiosities; rather is the cure generally effected by encapsulation of the diseased area by fibrous tissue. It may be said that I am speaking from the standpoint of a sanatorium man who sees but relatively few patients with minimal disease. On the other hand, we in

*(Read at the 163rd annual meeting of the Medical Society of New Jersey, Atlantic City, June 13, 1929.)

sanatoriums see a distressingly large number of moderately advanced and far advanced consumptives. Why this should be so has been the subject of intensive study by many workers in the tuberculosis field. Frequently, patients entering a sanatorium have a tuberculous history going back 2, 3 and sometimes 5 years; years spent in a foolish endeavor to chase the cure—and that is exactly what they have been doing, but have never caught up with it. When they finally do present themselves the disease is in an advanced stage. Dealing with that type of patient, we are glad indeed if we succeed in bringing his disease to a stage of arrest. This, however, is not done in the sanatorium usually because of the time factor, for according to the National Tuberculosis Association an arrested case is one in whom "all constitutional symptoms and expectoration with bacilli are absent for a period of 6 months; the physical signs to be those of a healed lesion; Roentgen findings to be compatible with the physical signs".

Seldom will a patient remain for 6 months after he is symptom-free; such a state to him usually means a cure, and why remain under discipline when one is cured?

In 1925, Drolet published an article giving an analysis of 96,000 patients as regarded their length of stay in sanatoriums: Under 1 month, 17%; 1 to 3 months, 24%; 3 to 6 months, 22%; 6 to 9 months, 16%; 9 months or more, 21%. He summarized as follows: "If sanatorium treatment or hospital care is to be effective, it must be given at least over a period of time in so chronic a disease as tuberculosis. The study reveals at once, that in an unfortunately large proportion, such an opportunity is not seized. More than 40% of all patients remain in sanatoriums or hospitals less than 6 months."

The Committee of the National Tuberculosis Association on "After-care and Social Reëstablishment" has this to say concerning the treatment of tuberculosis: "There are 3 phases or periods of treatment of pulmonary tuberculosis necessary to success. (1) Absolute rest, usually in bed, and applicable in a sanatorium with infirmary accommodations, a hospital or, when conditions permit, at home. This is usually the shortest period of treatment. (2) Rest, graduated exercises and work, best carried out in a sanatorium. A minimum of 6 months, usually longer. (3) Regulated after life."

The third is, in my opinion, most important, for on it depends the success or failure of our prime purpose—to keep the patient well. It is fortunate that this has been brought to our attention and we, in turn, must bring it to the attenion of our patients, that the treatment received in a sanatorium or hospital is but a minor part of the treatment necessary.

Since we cannot usually carry the patient through to an arrest or cure, the sanatorium should be to such an individual a school wherein he is taught how to live, so that his nutrition and resistance may be brought to the very highest possible level, and thereby made capable of combating his disease, the arrest or cure taking place months or perhaps years after he leaves the sanatorium. In a measure, therefore, the frequency of relapse, is dependent on how well we have inculcated into the patient the principles of right living.

It is not my purpose to discuss the relative merits of sanatorium and home treatment; nevertheless, it would seem that the former has many advantages over the latter, and is therefore to be desired. One is taught more easily by example than by precept. The patient in a tuberculosis hospital is one of many, doing the same thing day in and day out, and he very soon falls into the hospital régime. His ability to do this and his persistence in taking the cure spells success or failure.

It goes without saying that the longer a patient remains quiet and under medical supervision the greater will be his chance of arresting the disease. The urge, and often the necessity because of economic reasons, to discontinue treatment before this safe stage has arrived invariably means disaster. Looking over our records I find that the greater number of readmissions occur within the first year after discharge, and thereafter in decreasing numbers; which bears out the observations made elsewhere.

To tide the patient over this first year is an objective much to be desired. It is not

fair, either to the patient himself, the sanatorium, or the public at large to thrust a man who has just passed through months of inactivity under close medical supervision and discipline, into this work-a-day world—a heartless world that will have little compassion on him if he is unable to carry his load, and very frequently, an unsympathetic or even an antagonistic world if it is known that the individual has been a patient at a tuberculosis sanatorium, for there still exists among the laity, and to a lesser extent even among the doctors, the foolish fear of contagion.

In a small measure, we endeavor in the sanatorium to prepare the patient for this ordeal by having him go through a hardening up process before he leaves the institution. Patients are sent to the Craft Shop where they are taught the art of basket-making, rug-weaving, leather-tooling, etc., and women patients are taught, in addition, various kinds of needlework. They are encouraged to work there until they are doing from 4 to 5 hours work daily. In addition, some not fitted by temperament are asked to help the nurses, orderlies and janitors until they, too, are doing 4 or 5 hours work daily. A very limited number have been asked to work on the grounds; strange as it may seem, when asked to perform work of this character they feel they are ready to go home and work, forgetting that while at the sanatorium, they are working under ideal conditions and at the first sign of any untoward effect from the work will be immediately taken from the job.

Obviously but a limited number can be cared for in this manner, and these not indefinitely, for the cry is for more and more beds for the acutely ill, so that sooner or later they must leave. On discharge, they are given minute instructions as to how to conduct themselves after working hours, for it is understood they must go to work, and we usually advise them to return to their former occupation unless there is a well known hazard connected with it.

Dr. David A. Stewart, the well known Canadian authority, as quoted by Hamilton and Kidner, has this to say on the subject: "If at all possible, it is better for a man to return to his old occupation or some modification of it. His old job is easy to his hand, like an old glove; he can measure his capacity and avoid over-exertion in it better than in another, and in it he escapes the worry and uncertainty of learning new work. Employment in his old work is more easily secured; he knows his ropes and may be at work the week after the doctor pronounces him fit. A workman's trade is his capital, slowly acquired like the merchant's business, and to ask him to give it up, is like asking the merchant to burn down his warehouse, destroy all his records, cancel all his connections, and begin without resources to build up another and different business. When a workman, trained in a trade, gives up that trade and begins to learn a different one the loss to the individual and to the state is the same kind as the burning down of a factory; it is the destruction of an asset, personal and national. It is sometimes particularly suitable to train a man in an improved grade or a variation of his old occupation. He thus turns to account all his old experience and adds to his aptitude. Accordingly, a clerk who has little training may be taught the work of a bookkeeper, or learn shorthand and become a secretary; a machinist may be developed into a draftsman; a carpenter may become supervisor of work; a farmer may retain his old experience but have a lighter and more suitable job with shorter hours by learning to run a gasoline tractor."

We agree with the New York Tuberculosis and Health League that certain jobs should be avoided. "Those involving long hours, muscular or nervous strain, dust of any kind, odors, vibration, extremes of temperatures, humidity, continued exposure to bad weather; in short, any work that involves a heavy tax on the patient's vitality or, in particular, on the chest or lungs."

During this trying period, and in fact for many months after, the patients are visited regularly by our nurses to see that the lessons learned in the sanatorium are not altogether forgotten. In addition, patients are urged to return occasionally to the hospital for reëxaminations, at which times their condition is checked up; incidentally, this has a salutary

effect on those yet in the sanatorium, just as the return of a relapsed patient tends to show those still undergoing treatment the advisability of continuing.

It is a great mistake to simply discharge a patient and then forget him; it is then his real treatment should begin. Regular monthly examinations together with serial x-ray plates will often show renewed activity, even in the absence of symptoms. Tuberculosis is an insidious disease and frequently gives no warning of its onset or reactivation.

Webb, in a recent article in the American Medical Association Journal, shows that very graphically in a series of x-ray pictures, and I am sure all doing tuberculosis work have had the same experience; hence, the great necessity for periodic examinations.

The benefit of such supervision is demonstrated by the Metropolitan Life Insurance Company's report of 896 dischraged patients, 80% of whom were at work 7 years after discharge; they received adequate after-care and supervision. All cannot receive this supervision; only a few can avail themselves of the opportunity of undergoing the hardening process in the sanatorium, but must immediately engage in some remunerative occupation, unfit though they be. What is the answer to all this?

Various efforts have been made in this and other countries to solve it by "work colonies" or "workshops." The most noteworthy of the work or industrial colonies or village settlements is in England—the Papworth Hall scheme under the leadership of Dr. Varrier Jones. Such a scheme will make strong the weakest link in our treatment of tuberculosis, i. e., bridging over the the time elapsing from the discharge of the patient to the time he is able to safely return to his former occupation.

The industrial colony as defined by Crane of Rutland, Massachusetts, is: "A group of subsidized productive occupations, sufficiently numerous and sufficiently varied in type to afford congenial and healthful employment to male and female workers, who present a wide range of mental and manual competency, and who having, or having had, tuberculosis require a continuation of hygienic living, and who are prepared to accept the medical and hygienic regulations and conditions provided by the colony."

Various occupations are carried on in Papworth, but woodworking is the principal one; in addition, there are printing, tailoring, shoemaking, repairing, etc. In our own country, there is the industrial colony, at Rutland, Massachusetts, operated in connection with the Central New England Sanatorium, where 40 odd occupations are possible, including machine-working, wood-working, furniture finishing, bookkeeping, stenography, truck-gardening and carpentering. Positions are also open for nursing attendants and ward maids.

A frequent cause of leaving the sanatoriums is homesickness. In the industrial colonies provision is made for the housing of the patient's family, and if the patient has a negative sputum he is permitted to live with his family. Even with the sputum-positive cases, more frequent visits with the family are possible than when the family is located at some distance. This all tends to improve the morale of the patient and is a strong inducement for him to remain in this sheltered employment until it is deemed wise to discharge him.

A similar colony, but for patients only, no provision being made as yet for the families, is the Potts' Memorial at Livingston, New York, where printing is the principal occupation. The only urban project of this type with which I am familiar is the Altro Works in New York City; herein are made doctors' and nurses' gowns, children's dresses, etc.

In these institutions of post-graduate work, as it were, for the tuberculous, the kind of work best suited to the individual and the hours of work are prescribed by the physicians. It is superfluous for me to say that the working conditions are ideal.

Surrounded as he is by his family and reimbursed in a measure through a gainful occupation, the patient naturally has a different outlook on life and, in all probability, will remain until advised that he is fit. In addition, he is out of the hospital atmosphere and is less likely to develop an invalidism complex, the unfortunate lot of many of our patients.

In my opinion, the industrial colony or workshop is the answer to the question "What are we to do with our patients immediately after discharge?" Laudable as our efforts may be in building larger and better hospitals for treatment of the acutely ill, our work is in vain unless some means be provided to care for these patients during that dangerous year after discharge.

Our work should not be judged by annual reports showing the number of patients discharged as apparently arrested or cured, but rather by the number who are well and working 5 years or more after discharge, and the measure of our success should be the number of ex-patients who carry on year by year without relapsing.

It seems to me there is an obligation on the part of municipal, county and state officials to supply the means whereby our patients can receive this post-sanatorium care, and in the future no sanatorium should be considered complete unless such a colony or workshop is part and parcel thereof.

DIFFERENTIAL DIAGNOSIS OF PULMONARY DISEASES*

John Lloyd, M.D.,
Rochester, N. Y.

The two questions of supreme importance to every patient are, first, "what is the matter with me?", and second, "how soon will I be well?" In order to answer these queries intelligently a correct diagnosis is necessary. Most mistakes in diagnosis are due to the same cause, incomplete or inaccurate data, and these mistakes can be avoided. However, not all lung diseases are easy of diagnosis; many times they require most careful clinical study and the use of all available laboratory aids. A carefully taken history is most helpful in this, as in other fields of clinical medicine. Different diseases affect different age groups; pulmonary tuberculosis is relatively infrequent in childhood but is extremely common in the second and third decades, whereas bronchiectasis most often begins in childhood, and tumors of the lung are more frequently seen in patients over 30. The occupational history is at times important; metal grinders, stone cutters, and workers in acid fumes or other irritating gases are more liable to pulmonary diseases than other workers.

The family history is important, first in showing the stock from which the individual comes—robust or weak—and secondly because there are some diseases which apparently have a familial association, such as asthma, protein sensitization, malignancy, and rheumatic heart disease. Thirdly, intimate, prolonged contact with a known tuberculous patient may provide the source of infection for other members of the household; it is in contacts of this kind that most early cases of tuberculosis will be found.

The past history may be very suggestive as to the present illness; hemoptysis of a teaspoonful or more most frequently occurs in tuberculosis, which should always be thought of first, but it also occurs in bronchiectasia, abscess, malignancy and mitral stenosis. Pleurisy, with or without effusion, is almost always of tuberculous origin. Repeated head colds and bronchial attacks speak for nasal sinusitis as the underlying causes. Illness dating from an attack of bronchopneumonia, characterized by productive cough with acute exacerbations, is suggestive of bronchiectasis. Copious, foul sputum may come from bronchiectasis or abscess. Pneumonia which does not end by crisis, but continues a septic course, may be a tuberculous pneumonia, empyema, abscess or malignancy.

The onset of the present illness may be helpful—an initial chill usually means pneumonia but may be the onset of lung abscess, influenza or, very infrequently, of tuberculosis. Acute exacerbation of a chronic bronchitis is frequently seen in bronchiectasis, chronic lung abscess and in tuberculosis. Occurrence of hemoptysis may be the initial symptom in tuberculosis and malignancy, less frequently in bronchiectasis. I have seen 2

*(Read at the 163rd annual meeting of the Medical Society of New Jersey, Atlantic City, June 13, 1929.)

cases of rather extensive bronchiectasis with no sputum whatever, but in both rather large hemoptyses occurred at intervals. An acute attack following 10 to 14 days after tonsilectomy is frequently the first manifestation of lung abscess. Pulmonary embolus usually attended by sudden, sharp pain in the chest and followed quickly by marked dyspnea and shock, while an infrequent post-surgical accident, must be borne in mind.

Massive atelectasis is much the most frequent early pulmonary sequel of surgery, especially surgery of the abdomen and it also follows trauma of the chest wall. I have recently seen massive atelectasis following a normal delivery and another following cesarean section. I have also seen 2 cases of massive atelectasis in tuberculosis following hemoptysis. The well known symptoms of massive atelectasis are acute dyspnea, cyanosis, rapid pulse and, frequently, pain in the side affected.

Symptoms of the various diseases of the lungs differ according to the degree of toxemia, intensity of reaction in the bronchi, and extent of the disease process in the parenchyma of the lung or in the pleura. If the toxemia is marked there will be prostration and high temperature. If the bronchi are inflamed to any considerable degree, cough will be a striking symptom. If there is extensive involvement of lung parenchyma or edema of the bronchi, dyspnea will be marked and if the process be located near the periphery there will be produced a pleurisy with its attendant pain. In very few instances is the disease strictly confined to the bronchi, parenchyma or pleura, but on the other hand there most frequently is an invasion of parenchyma and bronchi or pleura, or of all 3 simultaneously.

Symptoms of the chronic diseases may much resemble each other and are particularly apt to be confused with tuberculosis. Observation over a period of days may be required for diagnosis.

Physical examination may give very confusing evidence at times. If the process be located deeply in the lungs or mediastinum one may be unable to obtain any signs of disease whatever. A cavity full of fluid near the surface of the lung will only show evidence of consolidation. A cavity does not always give the classical signs and may be overlooked. Areas of consolidation may be scattered through a lobe or lung, or both lungs, or a layer of fluid may mask all other signs. Signs such as these are seen at times in empyema, bronchiectasis, abscess or malignancy. Extensive bronchitis may cover up the signs of a small area of consolidation just as sometimes the signs of asthma may hide a tuberculosis in one apex. Fortunately these are exceptions and the old rule still holds good, viz, tuberculosis occurs in the upper half and nontuberculous disease in the lower half of the chest. Of course there are occasional cases of basal tuberculosis, but these are most usually diagnosed by positive sputum. There are also abscesses or bronchiectases in the upper half which are diagnosed by the history, physical signs and laboratory.

The râles of tuberculosis are finer in quality, rather closer to the ear and more apt to occur in showers than the râles of nontuberculous disease. They also do not appear after a cough but are frequently produced by the act of coughing. The râles of bronchiectasis are large and if the process be near the surface cavity signs may be elicited and also signs of consolidation.

In massive atelectasis there is marked displacement of the heart toward the affected side and breath sounds may be entirely absent when the whole lobe or lung is involved; however, only patchy areas of absent sounds may be seen where small areas of atelectasis occur. Frequently there is marked dulness and bronchial breathing present in the atelectatic area. Extensive fibrosis may cause marked displacement of the heart by pulling it to the affected side and large pleural effusion may displace it to the opposite side.

The laboratory aids are at times most helpful. Every patient raising sputum is entitled to at least one sputum examination. One positive for tubercle bacilli is most significant, but 10 negatives do not always exclude it. However, an abundant sputum constantly negative for bacilli is strong evidence against tuberculosis.

The mycoses or yeasts may be found and help tremendously in reaching a conclusion.

The study of the blood is most important; sometimes anemia is marked and may account for some of the picture, and a high leukocyte and polymorphonuclear count may be of decided help. A Wassermann may clear up an obscure train of symptoms. Urinalysis may disclose albumin, sugar or pus. The basal metabolic rate is most helpful in disclosing the cause of a tachycardia.

The x-rays are of the greatest help in diagnosis, for they will clearly show an opaque foreign body, frequently show the characteristic fluid level in an abscess cavity, or the infiltration, mottling and cavitation of tuberculosis, or the dense, intrapleural shadow of fluid. The heavy, broad trunks surrounded by more or less pneumonitis of bronchiectasis are quite characteristic. An x-ray film can disclose the presence of a central lesion which produces no signs, and it also gives one a valuable idea of the extent of the lesion. Since the iodized oils have come into use, many previously doubtful cases have been clearly established as bronchiectasis or obstruction of the bronchus. The x-ray picture of a mass in the hilum region of adults is most suggestive of new growths of some kind; whereas enlargements near the hilum in childhood are much more frequently due to tuberculosis of the hilum glands. The shadow of aneurysm of the arch is usually readily recognized. The circular shadow of metastatic malignancy is most characteristic.

Summary and Conclusions.

(1) A carefully taken history is always helpful and in some cases almost sufficient for a correct diagnosis.

(2) The symptoms in chronic diseases are very similar in that they are produced by the same causes, viz, toxemia, inflammation of the bronchi, parenchyma of the lungs or the pleura singly or together. Hemoptysis should suggest tuberculosis, but it also occurs in bronchiectasis, abscess, maligancy and mitral stenosis.

(3) The physical signs may be masked by an extensive bronchitis or by the wheezes heard in asthma, just as the underlying cause may be hidden by fluid in the pleura.

(4) The process may be centrally located and give rise to no physical signs of disease.

(5) Every patient with a productive cough should have at least one sputum study made; a positive means tuberculosis, but many negatives do not always rule it out.

(6) The roentgenogram is most helpful in that there are many disease processes which cast characteristic shadows; characteristic in density, shape, size and location. No patient should be assured that there is no pulmonary disease present unless a normal x-ray picture backs up the opinion, reached after a careful clinical study has been made.

DISCUSSION OF PULMONARY SYMPOSIUM

Dr. A. E. Jaffin (Jersey City): It is my privilege this morning to discuss one of the most comprehensive tuberculosis programs that I have had the pleasure of sitting through. Coming so closely after the national tuberculosis meeting, one may well say that it compares most favorably with it.

We are very much indebted to the Program Committee for this very wide survey from various angles. We have heard the statistical side from Dr. English, which is worthy of a detailed study for it will serve as an important guide in the future. While it was my intention to confine myself to Dr. Pollak's paper, I cannot resist the temptation to go beyond that limit.

Dr. Pollak, of course, has given us a very scientific picture, to be constantly kept in mind, of the clinical side and pathologic background which is so necessary in dealing with children, particularly, and the tuberculosis problem in general. Dr. Landis has covered the sociologic side in a most practical way. He has given us a very authoritative discussion based on a wide experience with a thorough understanding of the problem both from the physician's side and that of the patient. There is nothing to add to that excepting to concur in it most heartily. It was very interesting to hear him tell us how much success is due to rest in tuberculosis rather than to heliotherapy. If that is true in bone tuberculosis, it certainly is true in lung tuberculosis.

With reference to Dr. Collier's paper on relapses, I would like to say just one word. I think we are more fortunate in general practice than are the men in sanatoriums in that we more frequently see complete absorption and disappearance of a large variety of tuberculous lesions.

In children, for instance, there is the form described abroad by Elias Cerg, and by Bass, in this country, of a hilum tuberculous pneumonia. These lesions have frequently been observed to completely disappear. In adults I have seen cases of hydropneumothorax due to pulmonary tuberculosis get well completely, leaving ultimately no discoverable signs of tuberculosis anatomically as far as good films could show. It certainly is also true of a certain type of miliary or so-called submiliary infection of the lung. I am sure many of us who see cases outside of sanatoriums have been able to follow some of these cases and seen complete

absorption of the lesions. These are necessarily checked by serial x-ray studies.

Dr. Lloyd's reference to the frequent combination of asthma and tuberculosis is a very important thing to bear in mind. Strangely enough only recently I saw 3 cases in a month where the clinical picture was typically that of asthma without anything to suggest tuberculosis either in the history or on physical examination, and yet in the x-ray picture there was no mistaking the condition. Most of these cases prove, on further study, to be so-called nonspecific asthmas.

Speaking on Dr. Pollak's paper, particularly, I can add nothing to what he said except to point to the increased interest in the subject due largely to better methods of recognition by x-ray and by tuberculin tests and I think that the Mantoux or intracutaneous test is probably the best of them all. It is quite apparent that the x-ray examination is becoming more and more a part of clinical diagnosis and the day is gone when one needs to apologize for number of such examinations of the chest.

There is only one criticism I cannot help making on some of the observations on x-ray examinations of children, although I may get myself disliked for doing so. That is, that these extensive studies made on children with portable machines in schools owing to a reluctance on the part of parents and children to go to better equipped plants will give us results that will be open to criticism. This is a field of work wherein speed is most essential and it is impossible to get anything like speed with portable machines where it takes a second or more to get a fair contrast on a film. That is where it is important to use methods that will give us results in a tenth or a fifteenth of a second. Such films as one obtains with a time exposure of a second or more lay themselves open to criticism due to motion from circulation and changes in the branches of the pulmonary arteries which are misinterpreted as swollen glands and what not. With children, too, it is obviously difficult for some of them to coöperate fully and hold still long enough.

The routine use of the x-ray as often as one deems necessary combined with the Mantoux test will become, I am sure, more common in all cases where there is any history of exposure and in all cases where there is any evidence of general ill health on the part of the child. The problem then summarizes itself into these 3 considerations in a case of exposure or a child in ill health: (1) Is there disease? The general diagnosis enters here. (2) Is there tuberculous disease? Here I think the Mantoux test is most helpful. (3) Where is the disease? If it is suspected to be intrathoracic there is no greater aid than the x-ray examination.

Dr. Felix Baum (Newark): I was surprised at the large number of hilum cases shown by Dr. English. During the past 20 years I haven't seen more than 3 or 4 true hilum cases in adults. I think the reason Dr. English showed such a large number was that 20 years ago our x-ray knowledge was very poor and I think a number of those cases were really pulmonary tuberculosis.

Dr. Landis' remarks about climate demand an answer. I think the truth about the climate lies between the two opposing conceptions. I met Dr. Sewall, the former President of the National Tuberculosis Association, in Atlantic City 2 weeks ago and he tells everybody that 35 years ago when he suffered from a pulmonary hemorrhage he went to Denver and today is 75 years old but he would have been dead long ago without the Denver climate. Last week I saw a man in my office who came from a sanatorium near Pittsburgh and he didn't seem to get well. There is one thing he mentioned which I shall never forget. He said, "Doctor, there is one queer thing. When I wake up in the morning the whole bed is dirty and the only clean spot is the spot on the pillow where my head was resting". I don't believe that climate is always of such value as Dr. Sewall believes but I do think that the patients who are able to rest in a better climate are 10% better off. If I had a boy who was suffering from pulmonary tuberculosis, and if I had the choice, I would surely prefer to send him to the sunshine of Colorado rather than to the dusty climate of Pittsburgh.

One word about Dr. Pollak's paper. There is no question that the opinion about the primary infection in childhood is universal. I think everybody believes today that a child develops a primary infection in infancy, which heals in the majority of cases. But as far as reinfection is concerned, the opinions are still divided. I only want to mention the conception of Aschoff and the conception of Hübschmann. Aschoff believes that exogenous reinfection in pulmonary tuberculosis is the rule. Hübschmann states that nearly every case of pulmonary tuberculosis is the result of endogenous infection.

A few words about modern laboratory methods. I think we all know how difficult it is to make a diagnosis of active tuberculosis in children. If we would systematically use our laboratory methods as far as the hemogram, the sedimentation tests, and so on are concerned, we would be able to make a better diagnosis in cases of active tuberculosis.

Shakespeare's "Hamlet" says,

> To be or not to be;
> That is the question.

I think, active or not active ought to be the question.

Dr. Marcus W. Newcombe (Brown's Mills): I have enjoyed hearing all these papers and there are just 2 or 3 points I would like to emphasize. Dr. English's statistics demonstrate 2 things. When he says he had 1995 patients at the minimal stage and he has 1576 living, that shows what you can do if you get all of your cases diagnosed early. It also shows another thing, that you don't have to go to Denver or the Southwest or the South to have your disease arrested: that it isn't so much where you go as it is what you do after you get there: and if they have fairly decent air, dust proof, and they take the proper rest, they will get well most anywhere.

Dr. Landis mentioned the point about telling patients to go to a sanatorium for 2 or 3 months and they will be all right. A diagnosis will be made that a patient has active tuberculosis and some of the specialists sometimes as well as other men will say, "You go to Saranac or White Haven or this place or that place for 2 or 3 months, and you will be all right". I don't believe any patient who has active tuberculosis in the minimal stage can get well or get his disease arrested under a year. I think you ought to tell every patient that it will take him a year as the minimum time to get his disease absolutely arrested. If it is an early case, possibly with a negative sputum, the patient comes

to the sanatorium for 2 or 3 months and at the end of that time he thinks he ought to be well. Then there is a hard time to get the patient to stay until the disease is arrested because his family physician or some specialist told him that he could get well in a short time.

Tell your patients the truth when you are examining them—that they have pulmonary tuberculosis—if you think that. Don't tell them they have bronchitis or that they have a spot on the lung—whatever a spot means. Tell them frankly and plainly what they must do to get well. Someone has to do it and it might as well be done early in the game because they have that much better chance.

All pathology in the chest isn't tuberculosis. We all know that. But when we find pathology in the chest let us consider that it is of a tuberculous origin until we can absolutely exclude that. Put the patient at absolute rest in bed. If it turns out to be a carcinoma, mitral stenosis, or some other pathology, you have done no harm by putting the patient at absolute rest.

Dr. Lloyd mentioned streaked sputum in pleurisy. If a patient expectorates streaked sputum, the burden of proof is on the doctor to show he hasn't got tuberculosis. He may have some other thing but the proof then is that he hasn't pulmonary tuberculosis. Remember that your pleurisies, dry pleurisies, in a majority of cases are of tuberculous origin. In the pleurisies with effusions, other than traumatic—and you can get the histories in your cases of pleurisy, some wet and some dry, from 2 or 3 months to 25 or 30 years—always consider the possibility and the probability that streaked sputum is due to pulmonary tuberculosis until you can absolutely exclude it and that pleurisies are of tuberculous origin.

Dr. Chas. I. Silk (Perth Amboy): I think Dr. English is to be complimented on the splendid results he has obtained as revealed by his statistical survey. I would like to ask Dr. English what criteria were used in the diagnosis of his hilum cases of tuberculosis. Also, were the negative cases negative at all times or just negative at the time of discharge? What special methods were used in establishing a negative for tubercle bacilli.

Dr. Pollak has given an excellent paper but I would like to emphasize that in arriving at the diagnosis of childhood tuberculosis we ought to think, first of all, of the contact; that is, has the child been exposed? Then we should rely on the tuberculin test and particularly the x-ray findings. These should be the outstanding things on which to rely in the diagnosis of tuberculosis in childhood: malnutrition, as such, is not a good criterion to go by for establishing such a diagnosis.

In reference to Dr. Landis' paper, which was a very practical and interesting talk, I would like to add this: that we ought to stress the advisability of admitting tuberculous patients to wards in general hospitals—I mean special wards under special care, but they should be admitted to the general hospitals so as to give more opportunity for hospital care, particularly of the advanced cases.

On Dr. Collier's paper, I would like to make this comment: Relapses will be minimized just to the extent that a patient is provided with the proper after-care, which means social environment, employment, and above all, medical supervision.

I think Dr. Landis and Dr. Lloyd are entitled to our heartfelt thanks for the most interesting and practical papers that they have presented to us.

Dr. George H. Lathrope (Newark): I think that for those of us who are not definitely in tuberculosis work but are doing general practice or internal medicine, the matter cannot be too often and too loudly emphasized of diagnosis, history, physical examination, x-ray examination, and examination of the sputum. Those things should all be taken into consideration. No one of them should be depended upon to the exclusion of the others. There are times when your sputum examination gives you the entire clue. There are times when your clue is entirely dependent on the radiogram. There are times again when the history alone or the physical examination alone may give you the clue: but most of the time two or more of those factors must be taken into consideration in diagnosis.

About the x-ray test, I think there are two good rules. The first is always to have films made of a suspected case. That isn't always done. The second is, be conservative as to how you accept the dictum of the roentgenologist; that is, if possible, learn to interpret the plates yourself. It is much more valuable and it helps you a great deal more in making your diagnosis and in drawing your own clinical conclusions, if you can do that.

Dr. Collier, I think it was, spoke of the difficulties in making a differentiation on the radiogram between an active and inactive process. They are very great. There are few men who can do it; but even a man like Sampson, at Saranac, frankly admits that there is a certain percentage in which he is not accurate on that point. For the rest of us, we must accept evidences of activity and inactivity on the x-ray picture with caution; we must interpret those evidences according to clinical history and our clinical findings.

I want to speak of one other symptom that has impressed me lately in making a study of a large number of cases which came in with indigestion as a chief complaint. Out of that list, 18—almost 1%—who came in complaining of indigestion and nothing else and had been complaining of it for some time, were cases of pulmonary tuberculosis. That is something that is worth thinking about. Of course, it is a small percentage; but remember that indigestion may, if followed out to its cause, bring you down to a diagnosis of tuberculosis.

I should like to ask some of these gentlemen who have large sanatorium experience what their idea is now about the relationship between tuberculosis and asthma. I was very much interested a few years ago in taking a group of 40 or 50 asthma plates up to Sampson in Saranac in which he read signs of active tuberculosis in only 3. He was extremely interested in the whole series, and said at that time that up there they knew nothing about asthma. Since then, various reports have come out and they have been different from different sanatoriums. Some seem to give the impression that asthma rather tends to a higher percentage of tuberculosis; others that it does not. Our own impression is that it does not; that active tuberculosis in asthma cases is comparatively rare. It is a difficult diagnosis to make because the phy-

sical signs are hidden by the signs of the asthma. Also, the x-ray evidences you get give you an increased aëration of the lungs, which hides the comparatively slight evidences on the radiogram.

Dr. S. B. English, (Closing discussion) Dr. Silk intimates that sometimes it is pretty hard to make a diagnosis in hilum tuberculosis. These cases of ours that have been diagnosed as hilum cases have been cases that presented evidence of toxemia. They are exposed cases with x-ray shadows in their chest, chiefly in the hilum region; with rapid pulse, and with low grade fever. They have been poorly nourished and react to the tuberculin tests. We have excluded bad teeth and any other condition. No doubt, even with our efforts, many of them are nontuberculous. I think one of the hardest things that the medical profession today is up against is the justifying of a diagnosis of hilum tuberculosis. It is hard to do. But when you take children that come from families in which they have been subject to exposure for a number of years —and most of ours come from poor families, the father or mother generally having tuberculosis or having died from tuberculosis—they have these x-ray shadows with positive tuberculin test, and what else are you going to call them?

But there is one surprising thing to me in this whole picture. If they have tuberculosis, why is it that so few of them in later life fail to develop pulmonary tuberculosis? I have always thought either one of two things happened—the diagnosis is wrong or the treatment is mighty efficacious. I don't know which. It seems to me if all these children do have hilum tuberculosis and if it is the result of contact, the question comes up, what are you going to do about it? Are we going to sit by and idly talk about diagnosis and so on? It seems to me our job should be to bring about some scheme whereby this year-after-year contact should be prevented. They tell us the great things that are happening out in Chicago. I don't know whether it is true or not. You know, Chicago has a rule or an ordinance in the Board of Health of the City whereby no healthy children and cases of open tuberculosis can reside in one and the same household; that immediately a diagnosis of active tuberculosis is made, either one of two things has to happen—the adult has to get out or the children are taken out. They are claiming that even though they are the second city in size in the United States today, they have a lower death rate from tuberculosis than any city in the United States with a population of 100,000, and they say it is due to the fact that their children are not becoming so infected as in other cities. It seems to me it is worthy of consideration. Then again, when we know that children that come from families in which there is contact with active tuberculosis 85% of the cases react to the tuberculin test, and again when we know that in families in which there is no contact children only in 10 or 15% of the cases react to the tuberculin test, it seems to me that ought to make us sit up and take notice. We know that approximately one-third of those who react to tuberculin tests are at some time going to deserve treatment at the hands of our taxpayers and we ought to do something about it.

SOME IDEALS AND STANDARDS IN CHILDREN'S HOSPITAL PRACTICE*

Elmer C. Jackson, M. D.
Newark, New Jersey.

In the passing of years there has been a marked change in the social status of children. Among primitive races it was the exception to find anything like solicitude for their preservation. Infanticide and ritual sacrificing was the rule. Payne, in his "Child and Human Progress," said that the attitude of the tribe or the nation toward its young is also a barometer of its progress. When now it can rightly be said that ours is the "Century of the Child", and that the child is explicitly the father of the man, certainly our modern ideas of the child's place in the community and national picture must have changed markedly for the better. Not only have we progressed slowly, but surely, to better concepts, but the methods of dealing with the physical and mental structure of our children has progessed equally far from the practice in use even 50 years ago. However, personality and distinctive skill on the part of the physician are and always will be the essential and enduring elements in the handling of pediatric problems, even though conditions under which these factors are most effective have radically changed with time.

For quite obvious reasons doctors have been individualists. Until recently there has been no question of their being anything but independent and self-sufficient, and their services have been intimately personal. We have believed that the world is quite obviously peopled by separate persons and it is not surprising, therefore, that there are still a great many doctors who see the trees instead of the forest. Because of this, it is a salutary thing for physicians now and then to contemplate themselves from the social point of view—to inventory themselves, the places in which they work, the ways they go about their

*Paper read before the Pediatric Section New Jersey State Medical Society Meeting, Atlantic City, June 13, 1929.

work, and their place in the community. The traditional place of the doctor is at the patient's bedside, in the patient's room. In former years persons most commonly sought the advice and service of the doctor only in serious incapacitating illness. So much so, that his office work was comparatively unimportant. During the past generation, we have become increasingly dependent upon the sciences and upon such practical aids as anesthetics, x-rays, and modern instruments and equipment. In more recent years, the institution has become the most common meeting-ground for physician and patient, one reason, at least, for which is that this particular place offers special facilities for medical care. It is quite significant, that the amount of office practice, as well as the amount of practice in institutions, as distinguished from that in patients' homes, has increased at a very rapid rate in recent years. Because there has been this marked change in the amount of institutional work done by the physician, which curiously has proceeded with little attention from the general public, the writer wishes today to attempt to alter our perspective so that we may look at the forest rather than the trees.

For many centuries the primary incentive to the founding of hospitals was the spirit of charity St. Bartholomew's, in London, was established over a thousand years ago, to give service to poor diseased persons until they got well. One of our earliest hospitals in this country, Bellevue, was a combination of poor house and pest house. These establishments were not true hospitals, disease was not treated in them; they were merely places of refuge and shelter. In these early hospitals, particularly in those devoted to the care of children, things happened which could not now happen. At the Dublin Foundling Hospital, for instance, during the 21 years from 1775 to 1796, of the 10,277 infants admitted only 45 survived—a mortality of 99.6%. The same situation held also at the Paris Foundling Asylum at about this same period, where 80% died before reaching one year of age. Malthus, of birth-control fame, said, because of the great mortality in these children's institutions, that the surest means of checking the growth of population was to multiply infant hospitals and foundling asylums.

Children's hospitals both here and in England date from about the middle of the nineteenth century. In 1849 Dr. Charles West tried to convert the Royal Infirmary for Sick Children, which was a scattered lot of dispensaries, into a real hospital for the care of children. Today, there are over 250 beds in this institution and its out-patient service for children is one of the largest in the world. In this country, you will remember, the first institution devoted to the care of sick children was the Child's Hospital and Nursery, founded in New York. A year later, in 1855, a hospital for the exclusive care of children came into being in Philadelphia and is the same children's hospital which we know at this time to be doing such excellent work.

Hospitals of all kinds have had a spectacular growth in numbers in this country. In 1873, there were about 149 hospitals and allied institutions in the United States. Fifty years later this number had grown to about 7000. The bed capacity of these hospitals grew from 35,000 to about 800,000 in the same period of time. Twenty-nine years ago there were only about 150 clinics in the United States, whereas now there are something over 7000. The significance of institutional practice is far greater than is indicated by mere figures. Hospitals and clinics now perform major educational functions. Some of the reasons for the change in the place where we practice, if not in the character of the work we do, have been given by Davis, as follows: (1) The advance of medical science has necessitated an increasing capital investment, for efficient practice. (2) The advance of medical science has called for a greatly increased technical personnel. (3) The elaboration of this equipment and personnel requires organization. (4) Medical education is now carried on under conditions of institutional practice. (5) Social and economic conditions cause many persons to seek institutional care in illness.

These unquestioned facts in regard to the large increase in institutional practice, which causes now in operation are tending to increase

still further, lend considerable practical importance to the questions with which we are about to deal. That is, the ideals and standards in practice of institutional pediatrics.

In the beginning, the writer wishes to emphasize the fact that the reason for the hospital is the patient. Not infrequently we as doctors lose sight of this very important basic reason for the hospital. The whole organization of an institution is built up, not for the administrative staff or for the physicians, but in an attempt to offer the best service available to the patients.

It seems needless to say that hospitals require money to do their work. This quite obvious truth is sometimes forgotten by the medical staff, as is also the fact that the source of capital which operates the plant and equipment will have something to do with the management and control of the institution. The group that furnishes the money has a public responsibility automatically imposed upon it for its proper spending. The professional group of physicians at once becomes the agent through which the capital is utilized and a beneficiary from its utilization. Of course, without the physicians' money thus provided would be useless. It is not at all hard to see, therefore, that the doctors providing the service and the lay group providing the money thus have an essential interdependence and a fundamental common interest in effective work, which should be reflected in a unified management for the public good.

Because the money for the institution has been furnished by a lay group representing the public, the right and obligation of ultimate control of the institution are vested in this lay group on behalf of the public. This lay group, either managers or directors, cannot serve the public effectively unless they have the wholehearted, continuous counsel of the professional group. It is just as necessary, therefore, in hospital organization as it is in industrial, hotel or other commercial groups, to have as the directing responsible head a group of active, interested men and women.

Mere interest of the men and women who compose members of the governing board of an institution, is not enough. There is an increasing recognition of the significance and responsibility involved in the trusteeship of institutions for children. Therefore, when a group of people voluntarily assume responsibility for the physical welfare and often for the very lives of children, their duty is not to be lightly discharged. We know something about the legal obligations of the governing bodies of hospitals, but there are very few boards of trustees with which the writer has come in contact that seem to appreciate the much broader moral obligation toward their job. The moral obligation demands that they shall qualify for their responsibility by careful individual study of the institution, and by observation of the organization and administration of other similar institutions. The writer has never been able to understand just how boards charged with the management and the higher technical duty of the administration of an institution for children, can carry their responsibilities so lightly. It might be a proper procedure if all applicants for membership on Boards of Trustees could be thoroughly examined and passed upon by a competent body before they were permitted to have any voice in the policies or management of affairs of institutions of this kind. Boards of Directors should really direct the work for which the organization stands and they cannot do this unless they know a great deal about the problems connected with it. At the present time, in a great many of our hospitals, the job of directing is left by either charter, by-laws, common consent or the lack of it, to the Board of Directors, the Board of Managers, the Superintendent, a medical chief if there is one, and the staff. The result of such a disarrangement is usually confusion, and the lowering of morale generally. In the ideal, well organized, efficient children's hospitals with which the writer is conversant, the Board of Directors is the responsible and ultimate legal and working group, aided sometimes by a women's board which has no authority except that delegated to it and that carefully checked upon by the Board of Directors. This well run institution has a superintendent who is responsible only to the Board of Directors through a committee composed of

members of the Board of Directors and medical staff. This group meets regularly, and actually and directly has the final authority in medico-administrative matters. In the institutions that seem to be of the best type, members of the medical staff are not permitted to be members of the Board of Directors. The closer the contact between the board and the staff, the more active they are in knowing each other's problems, the more successfully the whole institution functions.

It is not proper to consider the board, the superintendent, the doctors and the nurses as separate parts of the hospital organization. Each is only part of the whole, and only as they function as a complete well rounded team, will the institution be efficient in the work at hand, that is, in giving the best possible care at the lowest cost to the patient. However, the active organization of any hospital begins with the superintendent. Upon him and his efforts depends largely the success or failure of the general conduct of all the diverse departments of a modern complicated institution. A hospital superintendent is responsible for the business of the institution. In order to conduct it properly, he must have a most intimate knowledge of all phases of its work. When we think of the problems the superintendent must face requiring leadership, almost a technical knowledge of the intricate departments of the hospital, a knowledge of housekeeping, a knowledge of cost accounting, a keen purchasing ability and a knowledge of the upkeep and equipment, care of the buildings and grounds, we have often wondered why boards of directors have permitted persons with very few or none of these necessary qualifications to take over such responsible positions. As you know, it has only been in the last few years that necessary preliminary training has been thought to be a prerequisite to the administrative job of superintendent of a hospital. Since the bigness of these jobs has been realized and the inadequacy of personnel to fill them has been found, we have actually started to teach applicants how to be good superintendents of hospitals before giving the job. An ideal superintendent must be able to get results because of his expert knowledge of all phases of hospital work. He is the liaison officer between the board and the staff, which means, of course, harmonious contact with each group. When a competent superintendent, possessing energy, tact, executive and administrative ability, with a thorough training in modern business methods, has been selected by the Board, he should be given a free hand with full authority in his domain, and then be held responsible for results. Sentiment, sob characteristics and favor currying qualities should not enter into the make-up of the alert, honest, and modern business-like hospital superintendent.

As was said in the beginning, the fundamental purpose of a hospital is to make the sick well, relieve suffering, and prolong life. Secondarily, but along with this, goes education of doctors and nurses, teaching of mothers and children, and the participation as a unit in the social and educational life of the community. Therefore, the most vital feature of its organization is the group of men who render medical service to the patients within its walls. Efficient conduct of the business of the hospital, good nursing, social service and the like, are essential, but they are adjuncts only and fail of their purpose unless intimately correlated with and subordinate to the work of the physicians and the staff. The success or failure of any hospital, more than all else, depends upon the character and devotion of its medical staff. Following along in the line of industry it may be said that in hospitals, organization should be on a functional basis, and whether the line or line and staff type of plan is introduced will vary with the opinions of those who are conducting the administration. Organization can be readily overdone. After all, the human element is the most important factor in all plans which are embraced in the conduct of so intricate a piece of machinery as a hospital. Someone has said that it is the man behind the gun who gets the medal for marksmanship.

We shall not consider children's hospitals in connection with universities because, unfortunately, in New Jersey we have none such. However, in hospitals of this kind, the staff is composed generally of those who are on the

teaching faculty, and the chief of the clinic is the professor of the department. In children's hospitals such as we have in our state, detached from teaching institutions, great difficulties arise in the actual organization of the working personnel. Most of our children's hospitals have a rotating attending staff. In this set-up a single service extends over a period of a few months, at the expiration of which time another attending man takes the service. Dr. Abt and others, whose broad experience has taught them the best methods, say that: "This rotating plan partakes of the nature of the spoils system in politics and should only be mentioned to be condemned. It admits of neither leadership nor progress in the conduct of the institution."

In still another system, about half of the beds for children are assigned to special departments, such as surgery, orthopedics and other specialties. The remaining beds are again divided among 3 groups of pediatricians. Each group consists of 3 men of different grades. We may designate them as attending, associate-attending, and adjunct. It is readily seen that when we have this arrangement, there are 9 or more men taking care of ward patients, excluding of course those who are being cared for in private rooms and who constitute the private practice of the staff members. Such a staff is said to be organized on the so-called *democratic* plan. Manning a children's department in a hospital in this way might be termed absurd, and requires no comment. It is obvious that it can lead only to confusion, lack of coöperation, and ineffectual work.

In the opinion of the leading children's specialists and administrators, the only plan of organization that seems to be satisfactory is one where there is a single chief who is the executive of his division. This divisional head should of course have definite duties, rights, and responsibilities, and these should be specifically stated in writing. Such regulations, if we may so call them, should be issued for the guidance of associates, adjuncts, residents and interns. In other words, the task of each should be agreed upon, should be stated in writing, and should constitute the policy of staff organization. Men should be chosen for staff position on the basis of their merit, on the character of the service which they have previously rendered, and on that rather intangible, potential factor, the amount of service which they are capable of rendering. Younger members of the staff should be promoted when they show definite progress. Willingness to coöperate and readiness to do team work should be the qualifications sought in those to be selected for the staff.

In many institutions that we can all think of, men are promoted mechanically because of the length of their service. Needless to say, again, there should be no advance except as a man has shown by his industry, intelligence and loyalty that he is worthy of a higher place. Charts and graphs of organizations will not alone bring efficient management. Everything that goes to make for success in a prosperous business concern must have full play in the business of running a children's hospital. The chief of staff should be a leader and should be able to inspire the members of his staff with the desire to work, to conduct investigation, to teach and to coöperate. The chief should have the ability to organize staff conferences, study clubs, and lecture courses, both for the staff and for education of the parents. He should be the kind of a man to stimulate the younger members of his staff to read and study, and by keeping abreast of progress in pediatrics himself, lead his younger staff members in this direction.

We are forced to admit, therefore, that the 2 essential principles which must be considered in staff organization are: (1) that responsibility should be concentrated with *one physician accountable* for the service of which he is the head, both in the wards and in the outpatient department; (2) that *individual service to the patient should be continuous* with the complete treatment of the patient under the direction of one physician. Consultants should not be chosen for the amount of weight their names may have if added to the yearly report. They should be active men, well versed in their specialties and particularly interested in the hospital to which they are attached. In some hospitals known to all of us, some of the consultants never cross the

threshold of the institution to which they are attached.

Departmental heads should be permitted to organize and conduct their own departments and should have the hearty coöperation of the remainder of the staff. For instance, it has always been rather a curious state of affairs to the writer, why we should appoint nose and throat men to head departments of this character, and then permit everyone on the staff to take out tonsils. It would seem that the one most qualified to do this job is the man who does nothing else, and teamwork and cooperative spirit should compel us to help him in his own field.

Before passing on from a consideration of the staff organization we cannot fail to speak of the most important duties which we as staff members have to participate in; that is, the staff conference. This whole subject is of such importance that the author can best refer you for its very complete handling to an article in the Journal A. M. A., May 11, 1929, by Sladen, of the Henry Ford Hospital in Detroit. Among other things he says: "Through these conferences many supplementary hospital activities may be brought into very proper relationship to diagnosis and treatment. Invariably the pathologist and the roentgenologist and their assistants are happy to join hands with the clinicians. The younger men may learn much about nursing, pharmacy and physical therapy, which is as yet unwritten, and not to be had elsewhere; also the proper manner of their use and appreciation of their usefulness, and an evaluation of the service they render." He says still further, that "the cultural principle, in addition to the professional principles, is preserved in a regard for general educational standards". We are all very familiar with the lack of effort on the part of those presenting cases in staff conferences, in their attempts to tell us what it is all about. Sladen aptly remarks in this connection that the "King's English should be kept alive in writing and speech, and care should be given to the form of the presentation and to the development of ability to think on one's feet". He continues with the statement that "examples of devotion to purpose (as shown in case conferences) have enormous value and do much to encourage self effacement and unselfishness. There is an opportunity to show one's best side in hospital work and to make full use of one's talents". The article generally is such a good one for us that it is heartily recommended for your study.

We, in children's hospitals are just as responsible for good complete case records on each patient treated, as are the men in general hospitals. Before we can have such records however, we must have the wholehearted determination and coöperation of the medical staff, the management and the personnel of the hospital, in a combined effort to secure case records of a high degree of quality. There must be a well organized department to handle them, with the necessary personnel. There must be a definite method of securing the records promptly and efficiently, with proper and continuous supervision. A complete history, embracing all facts pertinent to the case, should be promptly recorded on admission, and continued throughout the patient's stay; this is in accordance with outline recommended by the American College of Surgeons. We are all familiar with the fact that many records have suffered, and indeed have been frequently ruined, by short-cut methods used to barely meet requirements. The terms "negative" and "normal" are almost automatically and subconsciously written by many history takers.

None of us will attempt to gainsay the fact that good nursing is vital to every hospital, but particularly so to any children's hospital. We have long since forgotten the statement that children are miniature editions of adults. We know that frequently the most competent and efficient nurse on adult cases becomes the most incompetent and inefficient children's nurse because she has no training in pediatric work. One of the prime requisites in children's hospital work is the employment of properly qualified graduate nurses who because of their special training will not only see that proper care is given to their patients, but who will also be able to impart this knowledge to their undergraduate students. The most excellent work of the staff will be for

naught if the nursing service fails, either in respect to quality or quantity.

One of the frequent reasons for the failure of otherwise good nursing service is the fact that nurses are given too much to do. The proportion of nurses to patients required in a children's hospital is of course greater than that in a general hospital and varies, in the institutions that the author is familiar with, from 1 to 6 patients per nurse.

The training of pupil nurses is of course a very important part of the work in the children's hospital. To our institutions should come for training, the undergraduates from hospitals which do not have children's departments. To the high class children's hospital will come the nurses who wish to become trained in pediatric nursing and the graduates who wish to obtain a better knowledge of this specialty. This means that these nurses must be taught, and it is one of the big responsibilities of the staff to give them, at regular intervals, the lectures and practical work that they have the right to demand. Haphazard methods in teaching, both by doctors and nurses, in children's institutions are all too common, and should not be tolerated.

Pediatric out-patient departments have moved along the road of progress as have the hospitals. The old dispensaries were not established to give medical service but were set up to provide medicine to the destitute sick; hence the term dispensary. They were places wherein "those who have seen better days might be comforted, without being humiliated; and all the poor receive the benefit of the charity, the more refined as it was the more secret". Dr. Wiley, whom we have just quoted, further pays his respects to early dispensaries, in the following: "The dispensaries as they are now managed, without any certain knowledge as to the need of the help they give, are nothing less than a promiscuous charity, exactly similar to the notorious soup kitchens; medicine being substituted for soup". Generally speaking, there has been a change in the emphasis from *charity* to medical *service*, but there are still many dispensaries that operate in the soup kitchen class. Competent case work methods by social service departments obviate much of the habit of seeking free treatment which invariably tends to a complete loss of self respect and to an increase in cost to the community for the service. It was a rare occurrence in the old dispensaries to have the average patient receive more than a fleeting, cursory examination, and to leave the building without two or more prescriptions for medicine. One of the prime ideals, of course, in our modern out-patient departments is that each applicant for admission receive a complete and careful physical examination. We are more liable in the better grade hospitals of today to spend 30 to 45 minutes in our examination instead of 3 as was the former routine.

The out-patient department, next to private practice, gives the physician the best cross-section of what is going on medically. The ward men, especially those who are on full time, get practically no idea of the relative incidence of disease and are therefore deprived of one of the most important diagnostic aids, the law of probability.

Looking at the situation in this light, it cannot but seem strange that clinicians, even beginners, still look upon work in the out-patient department as a sort of hired-man-working-for-the-boss-in-the-wards job, with an eye and a hope on the real job of boss in the near future. The writer feels sure that you will agree that the fault does not lie in the out-patient department itself; it probably lies in the manner of conducting and utilizing the department. Davis, in "Clinics, Hospitals and Health Centers", gives 4 requirements for the making of an efficient out-patient department: (1) a proper number of patients; (2) an adequate physical equipment; (3) a suitable organization including enough clinicians, nurses, social service, paid and volunteer workers, students, records, and librarian; (4) most important of all, an all-embracing, ever present, *esprit de corps*. Too many patients per man per hour invariably means poor work. Both the doctor and the patients suffer. Ten or 12 patients would seem to be the maximum per clinician for a 2 hour period. The more doctors who can be called upon, the freer will be consultation, demonstration and discussion. The constant aim in the out-patient depart-

ment is not to provide material for the hospital, but to keep the sick children out, as far as possible. It costs about 5 times as much to treat a patient in a hospital as it does in an out-patient department and this fact should always be remembered. The author believes that the great majority of patients fare better in the home and in the out-patient department than they do in the hospital.

Necessarily, the working organization of an out-patient department must vary with its size and nature; the simpler the better. A maze of organizational red tape should cause neither the patient nor the clinician to feel lost.

A fact not to be lost sight of is that the morale and efficiency of those working in the out-patient department can be increased most markedly by linking them to the hospital work. There seems to be no sound reason why the men in the hospital should not likewise perform in the clinic and vice-versa. The men in the clinic should have some reward for the good work done and this will come if the hospital and out-patient departments are unified and something like a proper ranking given to the physicians who work in both departments. Many of the out-patient services now are being run on an appointment basis, thus affording the doctor more time for examination and resulting in benefit to the patient. The younger men on the staff, who have been properly chosen, are the future attendings, and should be trained and treated as such. Generally, they come into our out-patient departments direct from the completion of pediatric service in good hospitals. They have high ideals, and should be allowed to practice those ideals and methods in which they are trained without daily coming in contact with slip-shod methods of the senior men with whom they are compelled to work. The example set by the senior men in many of our institutions is certainly not conducive to good work on the part of the new-comers.

No hospital can now be said to be doing a complete job unless it has a well-manned, thoroughly trained group working together in a social service department. This is particularly true of children's hospitals. The best hospitals in the children's field are now directing more and more attention to the development of social service activities in relation to the physical care of patients before, during, and after hospitalization. No one will now question that the trained social worker, cooperating with the doctor in attendance, is of utmost assistance in diagnosis, treatment, and the often forgotten follow-up of patients. Children's hospitals cannot be called efficiently managed unless they have a modern social service department rendering fullest community service.

What the social service job in a hospital means was well summarized in the report of the American Hospital Association committee on the survey of hospitals, Social Service Bulletin No. 23, November, 1920: "It is the primary duty of social service in a hospital or dispensary to assist in the cure and prevention of disease in individual cases by such activities as: (1) Discovering and reporting to the physicians facts regarding the patient's personality and environment, which relate to his physical condition; (2) overcoming obstacles to successful treatment such as may exist or arise in his home or his work; (3) assisting the physician by arranging for supplementary care when required; (4) educating the patient in regard to his physical condition in order that he may coöperate to the best advantage with the doctor's program for the cure of illness or the promotion of health."

Social service is now one of the most highly specialized of professions and it requires workers who have been thoroughly trained and who have infinite tact and patience, broad experience and sympathies and a considerable degree of permanence. Unless a social service department is properly manned and run, there will be little or no coördinated effort on the part of the group to work with social agencies already in the field. There will be continual duplication and much misdirected effort because of the lack of definite policy and supervision. In one hospital with which the author is familiar the social service department is headed by a lay member of the Women's Board, and the nurses who do the so-called social service work have had no training in this field. Social case work should be

done in much the same way that medical case work is done and it requires proper training. Nurses who attempt to do social work without professional training in that line cost the hospital much more than they are worth. Generally speaking, a competent, well-organized social service department can be made to more than pay for its cost and upkeep.

There are so many comparatively accurate aids to diagnosis which are available in hospital practice, that we should not be content to rely entirely upon our own ability to diagnose without their help. You are just as aware as is the author that we still have men who prefer to have the laboratory make their diagnoses for them. The laboratory itself will be covered in another paper on this program, and the writer will do no more than to bespeak for good diagnosis everything of help that it can give in solving diagnostic difficulties. That the laboratory and the clinic sides are too infrequently coördinated by conference and actual clinical examination of the patient by the pathologist is all too true. In the writer's opinion, the pathologist should be given the opportunity to see the source of his specimen so that he may know the physical condition of the patient himself. In other words, there should be frequent and complete consultations between the laboratory and the medical services. Other diagnostic aids, such as the x-rays, should be used without hesitation, but in so doing, never losing sight of the patient as an entity.

One of our troubles, in these days of specialization, is that we fail to base our final conclusions as to diagnosis and treatment on the integrated child, after he has been disintegrated by the various specialists with whom he has come in contact. We are all too liable again to look at the tree and miss the forest. It is the whole child, his environment, and how he got that way, that should lead us to our ultimate solution of his problem.

The responsibilities in medical practice cannot of course be definitely summed up, nor can all of our ideals and standards in regard to the practice of pediatrics in institutions be incorporated in a paper like this. The writer has not wished to pose as historian, prophet, or preacher. He is only entertaining the hope that in the review of these well known ideals and standards he may have stimulated in some of his hearers a determination to do their part in the teamwork that means good institutional pediatrics. For we cannot take out of this most interesting work more than we have put into it. The extent to which these principles are carried out in your hospital or my hospital are finally matters for our own determination.

Discussion

Dr. Stanley H. Nichols (Long Branch): I am sure that we have all enjoyed Dr. Jackson's comprehensive and excellent paper. The subject is very timely and warrants frank discussion. As there are few of us who do not hesitate to send a baby or child into a children's hospital or children's ward of a general hospital, knowing full well the enormous difficulties of giving them ideal care, we are here today to discuss why this is so. What are the factors in management, medical care and nursing care that make it so much harder to carry on a pediatric service than, say, a medical or surgical service?

As to management, we must admit that most of the members of Boards of Managers of hospitals are selected for the length of their purse-strings or influence rather than for any other qualifications. This is necessarily so because of the heavy deficits present in most hospital budgets, and tends to make an unwieldy and inefficient group who rarely know much about where lay responsibility ends and strictly medical responsibility begins. The best solution for this is to have a small, carefully selected executive committee to do the real managing.

I quite agree with Dr. Jackson as to the crying need of trained hospital executives. No hospital can be more efficient than its superintendent, who is by all odds the most important cog in the hospital wheel. They should receive large salaries and be required to have a very comprehensive course in all that pertains to hospital management before they are qualified for positions. There is nothing about a nurse's training that qualifies her to do anything but train other nurses.

I also feel that a children's hospital service should be a continuous one, with one or more adjuncts and assistants who are fully capable of carrying on at any time in the absence of the attending pediatrician.

There should be in every children's ward one or more graduate nurses who have had plenty of special training in the hospital care of babies and children. Next, possibly, to the operating room the greatest dangers to human life in an institution lie in the babies' ward, and by the record of cross-infection and study of death records the efficiency of the service can be determined.

The ideals for an out-patient children's clinic should be the same kind of examination and treatment that a child receives in a pediatrician's private office.

The main difficulty, however, lies in the fact that in this present world where speed is the motto we take too little time to get together at a meeting or around a table and discuss and solve our several hospital difficulties. The executive committee, the superintendent, the chief of staff, the medical

staff and the head ward nurses should have joint meetings at least several times a year and thresh out their problems. Hospital rules will never take the place of personal, common-sense solutions of the obstructions which now stand in the way of ideal children's hospital service.

THE VALUE OF COMMON LABORATORY PROCEDURES IN DISEASES OF INFANTS AND CHILDREN*

ROYCE PADDOCK, M.D.,
Newark, N. J.
(With the assistance of Miss Jane Grimes and Miss Alma Herseth)

In diagnosis of diseases of children, the common laboratory procedures are important. The child can give little or no direct account of its disturbance, and those who attend it, particularly its parents, cannot often exercise the impartial judgment which might be valuable. Physical signs are often difficult to elicit. The common laboratory tests give plain and more or less reliable evidence of the condition of the patient or the cause of illness. Much of the disease from which the child suffers involves changes, too, in which laboratory tests alone can complete the picture. This is true of the infections, which predominate as causes of disease in infancy and childhood. Of 340 medical cases admitted to The Babies' Hospital of Newark in 1928, over four-fifths could be classified as infectious conditions. In such conditions, laboratory tests will form part of any reasonably complete record of the case.

In hospital pediatric practice certain procedures of this kind have become standardized as routine. Those in common usage on admission to standard institutions are: (1) Complete urine examination, (2) complete blood count, (3) nose and throat culture for diphtheria bacillus, (4) vaginal smear for gonococcus vaginitis (in females), (5) blood Wassermann for congenital syphilis, and (6) intradermal tuberculin test for tuberculosis.

It is interesting to note that of these 6 cardinal procedures, the first 2 indicate particulars of the state of the patient, the next 2 the presence of dangerous bacterial agents, and the last 2 the patient's reactions, clinically specific, to the major chronic infections. Every standard institution does not apply all these tests, but does carry out the spirit of the law of which these tests are the embodiment. This law or custom is the result of experience of the dangers of ignorance.

The figures which follow deal especially with findings in the first 2 tests, of which alone we have had routine experience. The patients were hospitalized infants mainly, and came from the poorer industrial sections of Newark. These figures cannot be considered accurate to any close degree, but will serve to indicate the main contention, since several thousand examinations are condensed in this summary.

Blood examination.—The hemoglobin is the only element in which we have routine findings, in 900 specimens taken. The average figure was close to 55%, as taken with the Dare hemoglobinometer. More striking than this figure is the number of those of 40% or less—over one-fifth of the total number of hemoglobin specimens taken. According to Holt and Howland, with whom other observers substantially agree, the period of infancy is marked by a normally falling hemoglobin value which reaches its low level of about 75% at about the end of the first year. The infant starts at birth with a higher value of 120%, or even 130%, which falls so rapidly that after the first few weeks the normal value is usually below 100%. This continued fall during the nursing period is no isolated fact of human physiology, for other mammals, as Jolly has shown in the case of the rat, exhibit the same falling curve reaching its lowest point at about the period when weaning begins. In rapidly growing puppies, following the weaning period, the hemoglobin similiarly falls off; according to Whipple, this occurs even when they are kept on a standard diet which is calculated to keep the hemoglobin at a normal level.

Holt and Howland make the general statement that, for young children, the average hemoglobin figure is about 75%, with common variations of about 10% in each direction. The figures for infants at The Babies'

---

*(Read before the Pediatric Section of the Medical Society of New Jersey, Atlantic City, June 13, 1929).

Hospital then show an average of 20% below this "average", and about 1 out of 5 shows a hemoglobin value of about one-half normal or less. These statements are true, if we accept the standards and these figures for the findings. Some confirmation is afforded by the condition of the red blood cells as seen on stained slides. This examination was, unfortunately, not routine, but in 280 complete counts on these patients, nine-tenths showed changes in size and shape of red blood cells, amounting to really marked changes in about one-tenth of the total number. Although these cases were selected and not routine, they are sufficient in number to show a frequency of anemia. In 117 cases of anemia in infants in which the red cells and hemoglobin were both estimated, the hemoglobin being 40% or below, it was found that the *secondary type* of anemia, *with low color index*, occurred *about 10 times as frequently as the primary type*, of which only 11 cases were observed.

Urine examination.—In nearly 1800 routine urine examinations it was found that a little over one-half showed some change which was considered to be abnormal. While 17% showed a trace or more of albumin, by the heat and acetic test, only 1.7% showed a definite reduction for sugar. Indican was present in 9.8% and acetone in 12.5%. Only 1% showed red blood cells, while 7% showed white blood cells to the amount of 10 per h.p.f. or more. Casts were present in about 5%, while only 1% showed many casts. Granular casts were present in less than 2%, while epithelial casts were very rarely found.

It is estimated, then, that while nearly 1 of 5 showed albumin in definitely pathologic amount, in only about 1 of 10 could the evidence be said to favor infection along the urinary tract, and only 1 of 20 showed damage to the kidney itself, as far as could be determined. Serious damage to the kidney was shown in only 1 out of each 100 specimens. The rather high frequency of Indican and acetone, roughly 1 of 10 for each, is probably the effect of faulty digestive conditions and intestinal bacterial activity, for the former, and infection and the usual reaction to anesthesia, in the latter.

While no figures can be given for the *nose and throat* cultures or *vaginal smears,* which have been routinely examined by the City Hospital, to date, *blood Wassermann tests* were positive in 12.6% of 427 cases (not routine), or more than 1 in 10. Very few doubtful reactions were obtained, most positives being 4+. They were done by Dr. A. McNeil, formerly of the New York Board of Health, working with amounts as small as 0.5 c. c.

Tuberculin tests, by intracutaneous injection of 0.1 mg. O.T., were not done routinely, and were done on children of various ages, mostly suspects and contacts. Positive results were obtained in 54 of 170 tests.

Examinations of the cerebrospinal fluid, while certainly not routine, are of such importance that the results in 80 specimens are recorded; 12 showed changes consistent with tuberculous meningitis, in 5 of which the bacilli were found; 6 showed meningococci; 4 showed Gram-positive cocci; 2 showed influenza bacilli. Only 14 could be called normal; the remainder show slight increase in cells or protein.

In 75 transfusion tests, donors were found for all but 10. In only 5 cases were the donors found in persons other than the parents; who were the chosen sources in four-fifth of the tests.

From the standpoint of positive findings, then, urine and blood examinations, emphasized as the first 2 of the 6 standard tests, are found to be worth while in a small hospital mainly for infants. It seems evident that in the many cases where the exact etiologic diagnosis is not made, or is doubtful, especially in infections, the condition of the blood and urine in respect to inflammatory or toxic changes must be of great importance to the physician in charge of the patient. The beginnings of damage to tissue and organs are seen here most definitely. But also what may be called metabolic changes are of great importance. "Bottle anemia" refers to a disease of nutrition which is discovered by blood examination, and not by the scales, although it may be suspected by the presence of pallor. The hemoglobin here is the most important in-

dex of faulty nutrition. The infant with a hemoglobin of one-half the normal value as in these of the secondary type, presents a grave problem in nutrition. It is handicapped in its respiratory function at a time when it needs all available energy for growth, and thus cannot be considered without grave misgivings for its future. The cause of these anemias is probably not all faulty feeding. Such cases will repay more intensive study than they are commonly given and are a more profitable study for us than are the more intriguing, rarer primary types. Changes in the urine of a metabolic nature, such as sugar, acetone, and indican, likewise point to a nutritional or digestive disturbance, however slight, and are conditions of which the physician in charge of the child must be made aware.

On the other hand, then, these simple findings may be followed out along the line of bacteriology, or of the more complex chemical methods, which may be of the greatest importance in diagnosis of individual cases. But they are not the foundation of laboratory service. The point especially to be brought out in regard to the common laboratory procedures is that they are no quick and easy road to diagnosis but, by their continued use, and especially their correct interpretation, which comes from long and careful application, they are found to be the staple methods, universally applicable, which give a return amply repaying the cost and labor of their execution. And so, while newer and more complicated methods are constantly appearing on the scene, methods often difficult of interpretation, often gradually found wanting, certain procedures deserve the name of common standards.

Those of the first line are at least the hemoglobin and complete routine urine examination, which together supply the bare essentials as far as the condition of the sick infant or child is concerned. The addition of the stained blood slide is probably the next most important step, revealing the state of the red and white blood cells. As seen on the stained slide, the state of both red and white cells, and the condition of the platelets, are probably of greater real importance than the number of red or white cells as counted in the pipet. Of course the complete count is desirable, if time permits.

When the standard tests devoted to the causal agent, diphtheria bacillus, gonococcus, spirachete or tubercle bacillus, have once been done, they may be left for a while, unless the clinical condition of the patient is suspicious, or the test doubtful, or positive. But those which show the changes of condition of the patient, as urine, blood, cerebrospinal fluid, and stool (the last 2 for special indication) must be kept ready for repetition, since the early changes in the child's condition can best be found in this way. This is especially true of infectious disease, which is the principal source of damage to the child.

This means that service is more important than complicated apparatus. Only close coöperation between clinical and laboratory workers, both seeing the patient oftener, preferably together, will produce the best results. These results will be obtained from *application,* which is the essential for common laboratory procedures, procedures too often neglected or scorned because they have been tools indifferently used.

Discussion

Dr. Vincent Del Duca (Camden): Dr. Paddock has evidently spent a great deal of time in getting this paper together. I feel that the subject is especially well chosen and timely because nowadays it seems that the profession too readily seeks for the rare and the high sounding instead of attacking the more common and probably the more profitable problems of pediatrics.

This paper brings out the importance in pediatrics, as well as in other branches of medicine, of the full coöperation of the laboratory man and the internist.

Specifically, in the discussion about hemoglobin and the blood count, while I have not collected any statistics, in the experience of all of us the impression is probably identical with the conclusions arrived at by Dr. Paddock. It seems to me that secondary anemia in a children's ward is almost of universal occurrence, and this should be so when we realize the causes of secondary anemia, the 3 most important of which are deficiency of the iron element in artificially fed babies, the presence of nutritional disturbances, and the presence of infection, which are each in turn very common occurrences in pediatrics.

As far as the urine is concerned, I think it is important to consider all of the factors in a given case because we know that the presence of even more than 10 leukocytes per high power field may be due not to a pyelitis but to some common infection, such as a throat infection, as has been shown by Dr. Mitchell and his co-workers in Cincinnati. Then again we know that cases that have not been proved to be pyelitis will often give those symp-

toms. While it is not altogether relevant at this time because of the importance of pyelitis in children, it might be well to mention the use of cultures from catheterized specimens as done at the Mayo Clinic as an important diagnostic aid. There, they have shown the importance of this method in diagnosing pyelitis that occurs in combination with other conditions, such as a tumor or a congenital or acquired deformity of the urinary tract. Possibly even before a child is submitted to pyeloscopy it might be a good idea to carry out this procedure because in the ordinary pyelitis it has been shown that you can almost always bring about sterilization of the urine by the judicial use of hexamine combined with some substance that will produce an acid urine. If the pyuria cannot be cleared up by the use of hexamine, it is wise to conclude that there is a complicating factor and then, of course, pyeloscopy would be indicated.

I was struck by the fact that there was quite a high percentage of positive Wassermann reactions. These evidently were not routine cases and even if the cases were selected the percentage is relatively high.

Dr. Frank W. Pinneo (Newark): This is a subject that is intensely interesting. I think Dr. Paddock has well put before us the essential point, that in the treatment of children, as distinct from adults, we do not depend so much upon subjective symptoms as upon objective findings. As often as any other question I have been asked is the one, "How can you tell what is wrong with a baby?" As a matter of fact, there are a great many advantages in studying the infant who cannot talk or describe his subjective symptoms and it has resulted in some benefits; first, that the observer is not thrown off the track by subjective symptoms, as by nervous adults; and, secondly, and more important, they do not anticipate his observations. Perhaps the most important single qualification of a nurse or doctor is the *power of observation*. This we see the ancients had who did not have our modern methods of diagnosis; and hence the discovery of cures as for small-pox, of which to this date we have not found the bacterial cause.

The point made of the necessity of routine examinations in all cases is excellent. We see of how little value is the preconceived theory of diagnosis, perhaps even a good working diagnosis, that has not a complete picture; therefore a little child who is sick should be given all these various examinations which will give the necessary information for a diagnosis, and which we can only get by investigation and not from the subjective symptoms. One thing that has impressed me in reading about research work and the great medical discoveries is that often, although they have started for an objective, perhaps their most important result has been not in finding what they were looking for, but the incidental finding of something else of value.

Dr. George H. Lathrope (Morristown): I am not a pediatrist, but my interest being in internal medicine experience suggests that the examination of children parallels so closely the examination of adults that I believe a routine examination of hemoglobin and of urine should be done in every case that comes into your hands. Dr. Paddock has brought out the questions in regard to hemogloin and they have been discussed, so I will not dwell on that phase of the subject.

But just one point in regard to urinalysis: When I was in medical school and in hospital service the idea was pretty generally inculcated that albumin and casts in the urine meant nephritis. I think that idea still obtains. Every once in a while patients bring in from clinical laboratories a urine report—and I am speaking of clinical laboratories where they make good observations—but their observations are vitiated by having at the bottom of the urine report a printed line which says "*Diagnosis.*" Now how can a man make a diagnosis from a urinary examination? I think it is absurd. The idea still obtains, however, among a great many of us, especially those of us who were taught at the time that I was, that albumin and casts in the urine imply definite kidney damage. I have gradually grown out of that belief into the conviction that the only thing, as a rule, that one can argue from that finding is kidney irritation. There have come to be other clinical signs and symptoms that mean definite damage. A patient who is febrile, definitely undernourished or toxic from one of many reasons, who has a chronic infection or heart disease, might be likely to get up enough irritation of the kidneys to show albumin and casts in the urine. While you may suspect the diagnosis of nephritis, it must be held in abeyance until it can be proved. One thing which I think is of great value, as suggesting nephritis, is the number of red blood cells shown.

Dr. Royce Paddock (Closing): I am obliged to Dr. Del Duca for pointing out the main probable causes for the secondary anemia so frequently found and indicating further tests that can be done.

I agree with Dr. Pinneo as to the importance of the routine laboratory procedure which I tried to bring out in my paper.

Concerning Dr. Lathrope's remarks, when there are a large number of casts and albumin in the urine I do not believe any of us would doubt that there was kidney damage, but it is true that with a small quantity the interpretation is not so serious.

The Wassermann test was not done routinely. Undoubtedly they would not have shown such a high percentage if they had not been done in cases of suspected syphilis. I think in many institutions where they have done routine Wassermanns they have found them positive as high as 7% in adults, so that our figures are not so very high.

RELATIVE IMPORTANCE OF THE FITTING OF GLASSES IN OPHTHALMIC PRACTICE*

SIDNEY E. PENDEXTER, M.D.,

The fitting of glasses is such a time consuming, patience rending, ill-appreciated branch of medicine, that to many the practice of ophthalmology may seem unattractive. The fitting of glasses requires time: but this time is used in work which is most gratifying to the patient, which procures for the physician an accurate measurement of the visual function,

*(Read before the Section of Ophthalmology, Otology and Rhinolargyngology, of the Medical Society of New Jersey, Atlantic City, June 13, 1929).

and which, when recorded, gives valuable data as case history which may be continued for years. Of course, rapid work can be done: but this is apt to lead to inaccurate work; important pathology may be overlooked, an important diagnosis not made, and the examination thus fails to do that which is expected of the eye physician. On the other hand, much time can be spent in refraction work, because time and patience are necessary for the subjective examination, and time is taken for the conscientious dark room examination. So, granted that much time is required, make this sufficient for an accurate refraction test, a careful working diagnosis, and a result that will prove beneficial to the patient and a credit to the ophthalmologist.

The patient's attitude is often also an unfavorable feature, because the patient is prone to object to the wearing of glasses or, as frequently happens, he wants glasses, or a change in his glasses, when not needed. This difficulty must be surmounted; and no one is better able to judge than the eye physician whether each case would be benefited by glasses, requires treatment for pathology, or does not need either.

Another objectionable feature of refraction work is that too much is expected of correcting glasses. The patient, who expects a telescopic or microscopic effect demands too much from a pair of glasses: the physician, who expects to cure everything from dandruff to bunions is doomed to disappointment; and the presbyopic patient, who expects a restoration of the accommodation of youth will likewise find that glasses have their limitations.

Yet this branch of the healing art has stood the test of time. Its efficiency has been proved. Even the public realizes the benefits derived from using correcting lenses, and physicians must accept the vision, as corrected by lenses, as the only accurate estimate of the patient's ocular function, and the benefits derived therefrom as a valuable therapeutic measurement which cannot be ignored.

The patient does not know whether or not he needs glasses. Most patients know that they do not want glasses. But in these days of fads the patient should be able to consult one who will not give him glasses whether he needs them or not; also he should see one who will not take off his glasses whether he needs them or not. The patient should be able to see a physician who is familiar with the pathology of the eye as well as of the general body, and who, after an estimation of the refractive error, should be able to advise just what corrective lenses will do to relieve symptoms or improve vision; and, if this alone is not sufficient, to advise such local treatment as may be indicated, or direct his patient to another physician, who is competent to prescribe necessary general treatment.

Many ocular lesions, often the more serious eye diseases, are obvious upon a casual or rapid examination, but more frequently the extent of ocular involvement can be accurately ascertained only by a careful refraction examination and estimation of the visual function with correction. The speaker believes that a careful refraction will reveal more to the eye physician than the rest of his examination. This statement is made not to discourage use of the ophthalmoscope but rather to emphasize the importance of ascertaining the effect of corrective lenses.

The history of the case is important in order to ascertain the symptoms of which the patient complains, but frequently statements previously omitted are disclosed during a refraction test which reveals the patient's temperament, character, and physical well-being; or, details of visual acuteness prove the significance of ocular lesions. The patient may prove to have useful vision with or even without correction, when a lens lesion would seem too great to permit this. This should not deter the physician from making every effort to relieve an active lesion, but frequently such a patient can continue his usual employment without the extraction of an immature cataract. The speaker has during a subjective test ascertained the existence of an unsuspected hemianopsia, scotoma, or toxic amblyopia. The refraction may prove the vision to be defective with correction, when a subsequent ophthalmoscopic examination reveals a minute macula change, an effusion in the vitrous, deposit on the lens, or a minute fundus lesion which would be easily overlooked were

we not put on guard by revealing a defective vision not improved to normal by corrective lenses.

In fact, we have in careful refraction work an accurate measurement of the ocular function. A failure to attain normal vision with correction, directs our search to lesions other than the refractive errors, such as fundus lesion or retrobulbar neuritis. The nature of the refractive error directs our attention to other lesions. For instance, the hyperope is prone to have an internal strabismus or an amblyopia exanopsia; the myope is more prone to have a choroiditis or a detachment of the retina; while an astigmatic eye may be evidence of a keratoconus or of corneal opacities.

Furthermore, a change in the patient's refraction may be evidence of intra-ocular disease. Myopia may be a recent development due to change in the lens of the eye, incident to the development of a cataract. A record of the patient's refraction gives a valuable means of estimating the degree of disease present, not only in the case of cataract, but in any disease affecting the refractive media. For instance, a patient having an iritis or an ulcer of the cornea should under atropin treatment accept more plus spherical correction to improve vision, if the media is clear, simply on account of the atropin effect on the ciliary muscle; but a myopia effect or diminished hyperopic correction is evidence of a change in the refractive media or a cloudiness of the media due to disease, and hence a continuation of the treatment is indicated. A recent change in refraction, whether or not improved by a change in the corrective lenses, may be due to glaucoma, cyclitis, iritis, or inflammatory changes disturbing the refractive media.

In conclusion, if it is the province of the physician to maintain or restore normal function elsewhere, so is it the province of the eye physician to maintain or restore ocular function. This can be accomplished only by the fitting of glasses, in a large proportion of our patients, hence the importance of this branch of ophthalmic practice is obvious. An examination of the eyelids, media, and eye-grounds is necessary, but only by testing the vision and by careful estimation of refractive errors, does one acquire the data which is a definite measurement of the visual function. This is of value not only to supply the patient with a prescription for glasses, but as a permanent record for each patient's case history.

The following cases illustrate typical findings in refraction cases.

Miss D. S. had headaches, dizziness, and a "sick stomach". The eye-grounds and media were normal and she accepted only +0.25 sph. +0.25 cyl. ax. 90° in each eye. I question if the symptoms come entirely from her eyes in this case, the lesion seems so slight, yet this does occur.

Miss M. S., aged 52, never uses glasses and does not complain of her eyes. Her vision without correction was as follows: O. D. 20/200; O. S. 20/200. Her eyes were in an extremely strained state but no lesions were found. A correction of O. D. –1.25 Ds.–2 D. C. ax. 95° and O. S.–6.00 D. S. –1.D. C. ax 15° improved her vision to 20/40 and 20/70 respectively. Although this patient's eyes were in a deplorable condition, she did not appear to be inconvenienced, nor was she disturbed by the state of her eyes.

Mr. S. M., aged 55, simply wished to have his glasses checked, but the examination revealed a chronic simple glaucoma. A subsequent questioning revealed the fact that this patient had been subject to periodic attacks of pain in and over the eyes. This has been checked and normal vision has been maintained for 2 years, by the use of pilocarpin drops.

Mrs. C. C. S., aged 33, has normal vision in each eye, but feels sleepy after reading. Mrs. S. was given a stronger correction for reading, but the ophthalmoscopic examination revealed sufficient retinitis to disturb the pigment layers in spots, and the urine analysis showed an intestinal toxemia. This patient was referred to her family physician for treatment.

Mr. E. P. had trouble reading. The print became jumbled and this condition was not improved by a change in his glasses. The ocular symptoms were considered toxic from a purulent ethmoiditis of long standing. An intranasal ethmoidectomy gave rise to an almost immediate emphysema followed by a

cellulitis and abscess formation in the orbit. The picture was quite alarming for a time, and the vision was so reduced that the benefit of the operation seemed very questionable. However, after the inflammation of the orbital tissues subsided, the vision, which had been 20/30 previous to the operation, improved to 20/15. The speaker feels that procuring drainage of the ethmoid cells probably prevented blindness due to this toxic focus.

THE IMPORTANCE OF CYCLOPLEGIA IN THE FITTING OF GLASSES

Leighton F. Appleman, M.D.,
Philadelphia, Pa.

In order to use cycloplegics intelligently in the testing of our patients we must consider the class of cases to which this method is applicable.

In the first place, cycloplegics are indicated in all cases of children and young adults; also in many patients between the ages of 40 and 45, but rarely after this latter age. Patients complaining primarily of symptoms which appear to be due to eye-strain, in that they come on after continued use of the eyes, should be examined under cycloplegia.

Of the types of refractive error with which we deal, hyperopia and compound hyperopic astigmatism are the most important because of the greater activity of the muscles of accommodation in this class of patient, and the greater need for relaxation by means of cycloplegics in correcting them.

Hyperopia is nearly always congenital, often hereditary in the higher degrees and, in the majoity of cases, associated with astigmatism in greater or lesser amounts. The eyes are small, foreshortened anteroposteriorly so that parallel rays of light come to a focus behind the retina. In order for a clear image to be obtained, the eyes must then accommodate through action of the ciliary muscle, innervated through the third nerve. Efforts of accommodation must therefore be made for distant objects which, to be seen by a normal eye, requires no accommodative effort. When the object observed is situated nearer the eye than infinity the accommodation must be still greater, and at the distance for ordinary reading or close work the accommodative effort is at its maximum.

It must be understood that this state of affairs begins in early life, and that it often increases in degree. It is here that squints begin to manifest themselves, because the excess stimulus through the third nerve, in the effort at accommodation, is communicated to the internal rectus muscles which are supplied through the same nerves. As the child reaches school age, in which greater and increased demands are made upon this accommodative effort, and still more as he or she passes into adult life with still further demands when an occupation is taken up which necessitates long hours of continuous close application, there comes a time when tire manifests itself in eye-strain.

Frequently spasm of accommodation supervenes owing to the persistent contraction necessary to overcome this error of refraction, when it then may simulate myopia and distant vision become indistinct. Possibly concave lenses may improve vision, and, without testing under cycloplegia, may be presribed, much to the detriment of the patient. Spasm of accommodation may also occur in persons having low degrees of myopia, under which circumstances the myopia may appear greater than it really is.

Aside from spasm of accommodation, as you well know, it is not always those persons who show the greatest amount of refractive error who complain most bitterly of eye-strain. We must consider the great variation in reactive ability in various individuals to strains of a similar nature; therefore, we realize that a refractive error which will cause much discomfort in one individual will cause no discomfort in another of more phlegmatic temperament.

Low degrees of error, with distant vision little if any below normal, but subjected to hours of close work, call for relaxation and

---

*(Read before the Section of Ophthalmology, Otology and Rhinolaryngology of the Medical Society of New Jersey, Atlantic City, June 13, 1929.)

rest by the use of a cyclopegic. When you consider the body as a whole, there are no muscles upon which a greater or more continuous demand is made than the muscles of accommodation under the stimulus of an uncorrected hyperopia or astigmatism. Other muscles obtain rest in change of position and activity, first one group and then another, but the eye muscles function from the time the eyes are opened in the morning until they are closed at night. Consider this fact in relation to our every-day occupations, in the never-ceasing panorama passing before our eyes upon the streets; add to this the never-ceasing effort to adjust 2 visual axes when weakness of the external ocular muscles, particularly the verticals, is present, and it becomes plain why the rest of the body is starved of nervous energy, and a long line of reflex symptoms engendered, when this strain is unrelieved.

A certain amount of hyperopia is spoken of as *manifest*, represented by the strongest convex lens through which the eye retains distinct vision. A certain amount is *latent* and can be developed best by the use of a cycloplegic.

In using a cycloplegic in these cases, we obtain both the manifest and the latent error, the latent being of a surprisingly high amount in some patients.

I am fond of comparing the condition of the muscles of accommodation in a hyperope after years of over-activity to the muscles in a blacksmith's arm which have been developed by constant use until their strength is much in excess of that of an average man. In the eye, a similar state of the muscles exists and this power must be relaxed by a cycloplegic in order that the latent error may be made manifest.

You may say that he cannot be given his total correction to wear, which is true, but we have a basis upon which to work with exactness, and we know that the nearer to a full correction we can come, in this class of case, the more comfort will the patient obtain in near work.

The objection of the patient to a cycloplegic is often based upon the assumption that if the cycloplegic is used he may have to wear his glasses all the time, which may be perfectly true, but he should be told that the muscles of his eyes are in the same state as the muscles in the blacksmith's arm—much *above normal* and straining—and when he wears the glasses they take off the excess work or strain and the muscles relax to their normal strength, enabling him to work comfortably, without tire, annoyance, or over-strain.

It is hardly necessary to enumerate all the different symptoms produced in the presence of this type of refractive error; suffice it to say that the brain symptoms are often the most important or most prominent and sometimes the only symptoms complained of, namely, frontal or occipital headache, vertigo, or insomnia. Occasionally the eyes are not considered the cause of these symptoms by the patient.

In order to correct these cases, a cycloplegic is essential because by its use all accommodative effort is put aside, atropin being the cycloplegic of choice in young children as it is the most powerful, and thoroughly puts the eye at rest. The pupil being dilated fully, estimation of the refraction can be done by means of the retinoscopic shadow-test, which is important in the very young because they cannot otherwise coöperate satisfactorily.

In young adults or in persons suspected of having spasm of accommodation, atropin is again the most reliable, and the rest to the muscles of accommodation induced by the prolonged cycloplegia is essential for relief of symptoms and for the uncovering of latent errors and astigmatism.

In young adults over 14 or 15 years of age, and in persons up to 40 or 45 years of age, atropin may be supplanted by homatropin which has a shorter cycloplegic duration. Thus a wage-earner may be treated over the week-end, with minimum loss of time.

To me, homatropin is the cycloplegic of choice in the majority of cases. Employed in the strength of 1 gr. to the dram, beginning the instillation 2 hours before the patient is to be examined and instilling 1 drop every 10 minutes for 9 instillations, consumes 1½ hours and allows an interval of half an hour to elapse between the last drop and the time for

examination. No untoward effect has followed its use; in a series of cases tested a few years ago in comparison with atropin it was found to be just as efficient in producing cycloplegia, with the great advantage of being time-saving for the patient.

I have used scopolamin in some instances when more prolonged ciliary rest was deemed advisable; in the strength of ½ gr. to the fluid-ounce instilled 3 times a day. Several years ago I used this drug in the strength of 1 gr. to the fluidounce in routine refraction at the Philadelphia Polyclinic, but in this strength it was not uncommon to observe symptoms of overaction.

Atropin, when employed in children under 7 years of age, I use in 0.5% strength 3 times a day. Over this age, I do not hesitate to use the usual 1% solution at the same intervals.

Cocain, added to the cycloplegic, increases the rapidity and probably the completeness of its action but has the disadvantage of roughening the corneal epithelium in some cases sufficient to interfere with the retinoscopic testing, and for that reason I do not combine it with the cycloplegic for refractive purposes.

As an example of the inaccuracy arising from refracting without a cycloplegic, I shall quote from 3 cases cited by Dr. H. Maxwell Langdon, apropos of this subject, before the Section on Ophthalmology of the College of Physicians of Philadelphia, on April 15, 1926.

In the first case, a patient 19 years of age, under cycloplegia in each eye, a low compound hyperopic astigmatic correction differed but little from that made previously without a cycloplegic but an axis of 180° in the right, and 165° in the left made the difference between comfort and discomfort in place of a previous axis of 90° in each. This well illustrates the importance of finding the correct axis of the astigmatism.

In the second case, patient aged 21 years, a noncycloplegic correction in the right eye of −1.25 D. cyl. axis 180° gave place to +.50 D. sph. with −2.25 D. cyl. axis 5° after cycloplegia, improving vision 5/5 partly to 5/4 partly. In the left eye +.25 D. cyl. axis 90° without cycloplegia gave place to +.50 D. sph. with −1. D. cyl. axis 180°, giving 5/4 partly. This case illustrates the marked difference in amount and axis of the astigmatism which may be revealed by a cycloplegic, both of which are essential to the comfort of the patient.

In the third case, patient aged 42 years, continued blur and aching were relieved by finding and prescribing about one diopter more of spherical error than was found by examination a short time previously without a cycloplegic.

Astigmatism of the lower degrees is most difficult to estimate accurately both as to amount and axis, and it is only by use of a cycloplegic that one can be sure of the result. This was well illustrated in a patient of my own a short time ago. In an examination 6 months previously without cycloplegia he was given cylinders at 90° axes. While the strength of the lenses was not greatly different in my examination under a cycloplegic, the axes were found to be 105° and 75° in the right and left respectively, resulting in a disappearance of his discomfort.

Many cases will cover up a fairly high astigmatism and suffer as a result, as the following case, cited by Langdon, shows: Mrs. J. B., aged 22 years, had suffered from attacks of trifacial neuralgia which had been diagnosed as *tic douloureux* and for which an alcohol injection had been decided upon, when it was suggested that it might be a reflex from ocular strain and that as yet the eyes had not been examined. The ocular examination showed no change in structure, visual acuity in each eye slightly better than normal, near point consonant with her age, and a good muscle balance. It was not believed that the eyes were at fault, but, as a precautionary measure, homatropin was instilled and the surprising amount of one diopter of hyperopic astigmatism was uncovered in each eye, the correction of which relieved the symptoms for over a month, when the patient reported a return of the symptoms. It was noticed that the frames were not those brought for inspection after the refraction, and it was found that she had not liked them and had the lenses placed in a different frame by another optician who had the cylinders about 15° off axis.

When this was corrected, there was again a disappearance of the discomfort.

I could continue citing similar instances, but I am sure each of you has had his own experiences along these lines which bear out the accuracy of these observations.

What has been said applies especially to those who are hyperopic or who have compound hyperopic astigmatism; the same applies, however, to myopia and to compound myopic astigmatism in the lower degrees, but in this class of patients the accommodation diminishes progressively up to an error of about 3 diopters, beyond which these patients may be refracted without a cycloplegic.

To my mind, in young adults there has been no method yet devised which can supplant in accuracy the results obtained by the use of a cycloplegic; in young children I believe its use is imperative. The first essential is to be sure the *total* refractive error is estimated correctly, as a basis for our final prescription, and only by the use of a cycloplegic can we accomplish this and be sure our findings are not clouded by an active ciliary muscle. This done, we can then proceed to a study of the external muscle balance and convergence power, and correlate the whole in the final prescription for the patient.

Discussion

Dr. H. L. Harley (Atlantic City): Dr. Appleman, whose paper I was to discuss, is to be congratulated for so thoroughly covering his subject in the short time allowed, and I think the Committee on Program is to be congratulated for selecting this seemingly simple subject for discussion.

Forty years ago the Jewish pack peddler, particularly in the country districts, supplied the folks with spectacles. I know, for I lived in the country 40 years ago. The customer himself made the selection. Now, nearly all jewelry and department stores supply spectacles and give you the benefit of a free examination. A large body of refracting opticians have taken over a good part of this work. But if refraction is to continue to be the large part of the duty of the ophthalmologist, it is certainly necessary for us to discuss these minute details which make for success or failure in the art of refraction; and I think that refraction is an art.

There is very little with which I can differ from what Dr. Appleman has said. The one point that I had thought of differing on was his upper age limit for the use of cycloplegic, and he took the wind out of my sails by saying *rarely* at 45. My own upper age limit—well, I have none—it may be anywhere from 50 to 55. The point is, does the patient have symptoms referale to eyestrain? If so, he gets a cycloplegic. I am sure I could get together quite an illuminating paper from the mistakes I have made by not using a cycloplegic on patients well over 45. It was only by grace of the fact that they didn't recognize I had made an error that they came back so that I could get a second go at them under a cycloplegic and find out my mistake.

There are a great many things, in fact almost every word of these 2 papers, that should be emphasized. There is a great deal said about manifest and latent hyperopia, latent defects. It is the latent ones that are uncovered by cycloplegia, of course.

An important point in the use of homatropin: It is a very unstable drug; in solution it retains its power but a short time; a fresh solution, I think, should be made at least every week, if not oftener. Personally, I use cocain with my atropin.

Dr. C. H. Schlichter (Elizabeth): The question of refraction and the fitting of glasses to a patient is one on which our own profession still requires information. The ignorance that exists among our brethren as to what "refraction" is and what glasses really do is profound. There still seems to be a fairly large proportion of men who cannot understand why glasses are necessary before the age of 40 or why it is ever necessary to use a cycloplegic. I am in accord with what Dr. Appleman has said about cycloplegia. As to the relative merits of homatropin and atropin, my own opinion is, that homatropin is a very unstable drug. Even when you use homatropin in tablet form there is no guarantee that the salt is retaining its full power. It may deteriorate in the presence of the sugar of milk or the calcium chloride which is mixed with the tablet. My own observation is that the homatropin we used before the War was a more stable and dependable cycloplegic than that which we are now using. In recent years my results with it have been so uncertain that I have practically given it up as a cycloplegic. I have had a number of experiences where, after correcting a patient under homatropin, I found that the symptoms were not relieved. After using atropin, when the patients came back for further refraction, I was surprised to find how much more correction they would accept than they did when I thought I had complete cycloplegia under homatropin.

Personally, I use atropin almost exclusively and I have solved the problem of the annoyance to the patients, from not being able to use the accommodation, by loaning a pair of glasses ranging from +2.50 to a+4. which they use for a few days while the cycloplegic is at its height. In this way they get along very nicely and are able to follow their occupations.

As to the age limit at which a cycloplegic should be used, I feel like the previous speaker, that there is practically no age limit. In these days of constant reading, motion pictures, electric lights, rapidly moving vehicles on the streets, and with a better general health and possibly a nervous system working at a little higher tension, people seem to retain their power of accommodation a good deal longer than Donder's taught us that they did. In fact, the work of Duane which was done to check up the Donder's curve showed that accommodation in many individuals lasted not only well above 60 but even above 70 years of age.

Dr. Charles Littwin (Englewood): I have had many an occasion to see patients who have been to see supposedly very big men but the bane of the latter's existence is "refraction." Situated as I am, right on the border of New York, I naturally have to compete with all the men there, and I note

that the bigger the man is, the less time or the less care he gives to refraction.

I think Dr. Pendexter's paper was a timely one in that we should all take care and time to do a refraction properly, because, after all, in the beginning at least 75% of an oculist's work is refraction. That is the point to put over to the patient, that you are careful and in that way they judge your skill and care.

The second thing I want to mention is in regard to the use of homatropin. The past 9 years I have used it and although we change our solutions every 2 weeks, I always put into every ounce, one drop of phenol to prevent any mould formation, because, after all, I think the instability of the drug is usually due to some fungus or mould, and putting in either boric acid or phenol in the solution will keep it longer.

The only thing I disagree with Dr. Appleman on is this: Instead of using it for 2 hours, I have found 25 to 30 minutes is plenty: 5 or 6 drops every 5 minutes, and then waiting 10 or 15 minutes gives a pretty good dilatation. Occasionally one has to wait 15 minutes longer and add a few more drops

Dr. James A. Fisher (Asbury Park): Before we enter into discussion, because I know there is going to be discussion on the point that was just brought up, I want to just cite a history of a patient that I saw early in my practice that put in my heart great fear of cycloplegias being used indiscriminately. This patient had gone from our town of Asbury Park to Philadelphia, not to Dr. Appleman, however, for examination. The patient was a woman aged about 40, highly neurotic, under extreme nervous tension. It had been her custom to go to Philadelphia about once a year to have her eyes refracted, each time under a cycloplegic. On this particular occasion when she returned from Philadelphia, she was taken with the symptoms that she could not explain, dimness of vision, and inflammatory injection of the eyes. She tried to reach the man who had done the refraction, but he had left town on a short vacation. Well, I was called to see the patient and, lo and behold, there was an acute bilateral inflammatory glaucoma. It took a great deal of effort to reduce the tension and to save the vision. The important thing in this case, it seems to me is this patient, an out-of-town patient, lost contact with her physician through the 75 miles distance, and each time she had come home from Philadelphia following a refraction she had had the identical symptoms in a mild form, but they had subsided. A few weeks later after the acute symptoms had subsided, she was operated on with a bilateral Elliot corneoscleral trephine.

That one case has taught me to be very cautious in the use of cycloplegics in these highly nervous patients, because I believe that we can get into serious difficulties. I use cycloplegics in some adults, not all adults, but I pick them with pretty great care.

Dr. E. J. Marsh (Paterson): I think that one point Dr. Appleman made is of very great interest. It is familiar to all of us, but it is often a little difficult to bring out. The patients appreciate it, and also their families sometimes. That is the fact that there is an immense difference in patients and how individuals react to differences of refraction. Some patients of neurotic tendency or otherwise not very strong will be immensely relieved by a low correction that you perhaps ordinarily would think, when you first examine the patient, can't have any very great importance; whereas, you will see other patients where you discover incidentally, as it were, that they have a high astigmatism, or something of that sort, and yet they have been going along perfectly comfortable and came to see you for some other reason. You see cases where correction of a quarter of a diopter of minus astigmatism will cause great relief, and, as I say, in other cases, a much higher plus astigmatism will apparently cause none. That, I think, emphasizes the importance of the point that has been made several times, the difference in patients, and also that the place where cycloplegia is most important is especially in the lower degrees of astigmatism. I thoroughly believe in the use of cycloplegias in refraction, but I think that where it is most important is in the low degrees of astigmatism or low spherical error, especially as it will very often reveal a symptomatic miosis which is actually a hyperopia with ciliary spasm.

With regard to the use of cycloplegics, very often there are unquestionably cases to which the giving up of time for the cycloplegic, even 48 hours for homatropin, is a hardship. That is less true in people who are business men, people who are in the office making a good many dollars a day, than it is to mill operatives and people of that sort who have a very limited income and hate to lose a day, even, from their work.

In a good many cases where there is a high degree of plus astigmatism, I think you can prescribe a correction near enough without cycloplegia to give symptomatic relief, which is what the patients are looking for, and in some cases I do so, while I think probably it would be wiser to use cycloplegia. I give the patients the nearest they can take, but always with the warning that we are taking a certain amount of hazard; that this will probably give them the relief they are looking for, but if they have further trouble, it may be necessary for them to come back and have the cycloplegic later. I must say a very few such cases return to me, whether because they are satisfied or because they are dissatisfied, we never know. I at least haven't had many such cases return.

About homatropin, I would add to what has been said already that for some years I have not used solutions in my office of either atropin or homatropin or most of the other drugs used for the purposes of absorption. I use altogether Burroughs Wellcome tabloid discs, and I find that 2 such discs, composed of homatropin and cocain of each 1/50 gr., at half hour intervals, will almost invariably give a satisfactory cycloplegia. I haven't noticed, perhaps due to my lack of observation, the difficulty that Dr. Schlichter has spoken of, the deterioration of atropin in later days, since I have been using these discs. I have also used Wyeth's and different others, but I find Burroughs Wellcome by far the most satisfactory in my personal experience.

Dr. E. S. Sherman (Newark): To do accurate refraction work, cycloplegia is essential in many cases, but it may often be safely omitted. The beginner should examine practically every case under 45 years of age under complete cycloplegia until he has done 500 to 1000 cases of careful refraction. After that he should be able to select the ones that really need it. There are many cases in which, for practical reasons, it can and should be omitted, if the examiner has had sufficient experience and uses good judgment in selecting the cases. To follow an ironclad rule of using a cycloplegic in every case is as foolish as not to use

it at all. I follow the common practice of using homatropin without cocain in most cases, but often use—especially in children—hyoscin hydrobromate. The latter is convenient because 1 drop of 0.2% solution is effective in about 1 hour. Occasionally, for children, when drops are to be used at home, I prescribe atropin.

In adults, the use of a cycloplegic should be followed by a drop of a weak solution of eserin before the patient leaves the office.

A very careful preliminary or precycloplegic examination with the trial lenses is most important. With my first few hundred cases of refraction I used a cycloplegic in practically every one, preceded by a painstaking precycloplegic examination. In nearly all cases there was practically no difference between this and the postcycloplegic examination. Several years ago, at an army post, Dr. Walter Lancaster, of Boston, and I did a series of about 30 refractions. I examined the cases as carefully as I could with cycloplegia and he without. Our results differed very little. After all, the important thing in refraction work is to prescribe glasses that the patient can wear with benefit and comfort, and not always what may seem to be indicated by our mathematical measurements of the eye.

Dr. Albert Pilkington (Atlantic City): I was rather misled in the title of the first paper. I had not anticipated prescribing for fitting. I thought very probably we were going to have a symposium on the fitting, the value of the correct fitting of the glass to the individual. The question of testing an eye and the question of the value of the ophthalmoscopic and slit-ray examination before testing, of course, there is no comparison. One should make the diagnosis of the eye, of the health of the eye, before there is any attempt to prescribe or even to accurately test for a glass. That should go without saying.

With regard to cycloplegia, I am very glad that the sections throughout the country are taking up the question of cycloplegia. We have been rather backward in advertising the points of whether a young individual or any individual should be refracted under drops. The optometrists, on the other hand, do not hesitate to advertise that they do this work without drops, just as accurately as we do, when you and I know that the statement is not true. So there should be no hesitancy on our part in advertising to the public that a correct refraction in the average of young people requires cycloplegia.

The case our friend here has reported should not have occurred if the individual who examined the eye had noted the depth of the anterior chamber. No eye with a shallow anterior chamber should have a mydriatic put in it until one is satisfied as to tension, as to history and as to examination.

In 25 years of refraction work, 11 of which were in 3 of the largest hospitals in Philadelphia, and in Atlantic City in the last 9 years, I have not seen 1 case in which I could say the mydriatic was a detriment. It should be the routine course with all ophthalmologists to give the eye a thorough examination. Refraction is not the spectacular thing that taking out a cataract or an optical iridectomy is, but it constitutes such a large part of the ophthalmologist's work in general that we ought to feel that the responsibility of putting the proper glasses on the individual is worth the effort necessary to be put into it. I wouldn't be guilty of putting a glass on an eye which I didn't feel was of some distinct advantage to the individual, and my success, I feel, has been in giving that type of service to the individuals who did not get it from other testing individuals, whether ophthalmologists or optometrists.

I would like to say with regard to the case which developed acute glaucoma, those of you who read the last report of the Society for the Blind, those who were not present probably read of the work which had been done under the public health service in the schools in Washington, where the testing of children, taking a block of 2000 children and testing them out with a mydriatic, was carried out, and the results obtained by that service. I myself would not think of refracting any young individual without a mydriatic, unless there was some pathologic reason for not doing it. I feel that I am safe in that procedure, in that I every day or almost every day, have patients who complain of having spent the little money they had, usually poor working people who have little to waste, with an optometrist who does the best he can but does not give relief from the symptoms, and they have to come to men of my type to get it. There should be no better proof that the work we do should be of that character and that it is correct. If we have any errors in our technic, let us discuss them; let's not be afraid to go before the public and say something about it.

Those of you who read Dr. Calhoun's recent paper on the question of blood pressure and glaucoma should, when you see an indented vein, even if you don't have a nerve that is cupped, the moment you see that, look and see what the question of your tension is going to do to you. It is the coming thing in the next year or two, the relation of the tension from increased blood pressure, rather than just poor drainage. It has been overlooked. We have drainage in our minds and we overlook it entirely. We were considering what was going out, rather than taking what was coming into the eye.

Chairman Emerson: I feel rather ashamed to get up and talk about refraction because all you men who know me well, know that I am crazy on the subject: I am a nut on it. Many of you think that my views are extreme. It has been said that refraction work is the thirty-third degree of ophthalmology and I feel that it is. In the papers read I feel that there has not been enough stress laid on the relationship between refraction work and general health.

The profession owes to men like Weir Mitchell and, particularly, to Dr. George M. Gould, whom many people thought was very much crazier than I am, a great deal for bringing out the importance of refraction work for its effect on general health. As Dr. Sherman has said, refraction work runs in some men's practice up to 75 or 80% of their work, and it does with the men who are doing thorough and good refraction.

We all have had experience, I am sure, of many cases such as were cited by Booth, for instance, a few years ago. A woman brought her little boy to me for refraction which I did in the ordinary routine way and didn't attach any particular importance to it. The child had a considerable compound hyperopic astigmatism and was fitted and the woman was told to bring the child back for inspection of the glasses, which she did. Then of her own accord, about 6 months later, she came to me one morning and said, "I want to tell you a story, Doctor." I said, "All right, I will be very glad to hear it." She said, "I didn't tell you the last time I came back, because we have been disappointed so many times that even though our

child was relieved, we didn't want to be too hasty in making up our minds. This little boy of ours from his earliest years has been in poor health, a frail child. When he was small, he couldn't get any diet to agree with him. He always had headaches, always had sick stomach", and she cited a train of evils from which he had suffered. She said: "We had him to 14 different specialists up to the time that he came to you when he was some 9 or 10 years of age. He would be better for a short time, but then he relapsed. Then somebody suggested to us that it might be due to the boy's eyes. So we came as a last hope to have this boy fitted." She told me he is entirely relieved. I can't remember how many pounds he gained, but he was quite a normal boy and she attributed it entirely to his glasses, and when his glasses were broken and he was without them 2 or 3 days, he had a return of his old symptoms. She summed the matter up like this: "We recently built a house. We keep a very close expense account. We have spent more money on this boy for doctors than we did in building our house, and he never was any better until he got his glasses."

When you get stories like that, it is gratifying.

The late Dr. T. N. Gray used to have attacks of sick headache which put him in bed for 3 days. When he got to the presbyopic age, he came to me and I found he had a hyperopia of some 3.5D but had never worn glasses. After refracting him, I told him I thought his sick headaches were due to his eyes. He wore his glasses and on frequent occasions I saw him and we talked the matter over. He said, "Well, I don't have any more sick headaches, but, Emerson, it isn't due to my eyes. I have changed my way of living. I have changed my diet. I don't live the way I did formerly, and I am all cured of my sick headaches." One day he came up to my office rather hurriedly, as was his characteristic, and in a brisk way said, "Emerson, I have come up here to apologize to you." I said, "Why, what have you done to me?" He said, "You have been telling me for several years my sick headaches were due to my eyes and I said they were not. Last week I broke my glasses and sent them for repair and they sent them out by mail and they were broken, and I sent them back and they didn't send them a second time for a few days and then they were broken. I was without my glasses for 5 days and after the third day I went to bed with one of the worst sick headaches I ever had in my life, and I haven't had one in several years. I believe you are right and I am wrong. As I look back over it, all those sick headaches I had in all those years were due to my eyes."

Then there is the importance of refraction work and the other work that goes with it in the treatment of squint in small children, the improvement in vision and all that sort of thing. Of course, it is a subject that a man can talk on for a year, if he happens to be as enthusiastic as I am. I am emphatically sold on the use of cycloplegia and like Dr. Appleman and most of the other men, I use hematropin for various reasons. One of the principal ones is the convenience to the patients. So many workers object to a loss of time. There is a certain type of case in which a longer cycloplegia is desirable than that which you get from homatropin. It is true that homatropin does deteriorate. I have found this to be satisfactory: I use nobody's homatropin but Merck's. I buy it myself in 1 dram vials and make a fresh solution of 1 oz. about every 7 or 8 days. I do add a small amount of cocain, probably 1 gr. to an ounce, as it lessens the redness. I don't think in that amount it roughens the cornea to cause any difficulty.

My instillations are done just about as Dr. Appleman's, every 10 minutes, but 7 times instead of 9, allowing a period to elapse afterward. I have given up entirely giving patients prescriptions for homatropin, except in very, very rare instances.

In small children I use atropin, quite rarely. In our clinic we use scopolamin for the reason that the nurse has so much to do that if we have 10 or a dozen refraction cases, and she has to put drops in every 10 minutes she hasn't time to do anything else. As they are largely school children to whom the loss of 3 or 4 days of close work isn't of very great value as compared to adult workers, we use scopolamin in practically all of our children.

In making up my solution, I find chloretone is very much less disagreeable in odor than phenol, so I use about 1 gr. of chloretone in my homatropin solution and it works well. It is not incompatible and it has slight anesthetic effect and also a marked antiseptic effect, preventing the development of fungi of various sorts.

Practically all cases get a drop of eserin in their eyes, sometimes 3, after they are through, for the reason in the workers it enables them to read within 2 or 3 hours. I think one of the objections to cycloplegia in the past when everybody used atropin was it incapacitated the man from work 8 or 10 days. He didn't feel he could afford it, nor many of our teachers and office workers, stenographers and women as well; they didn't feel that they could give up that amount of time for having their eyes examined.

Dr. Emery Hill a few years ago sent out a questionnaire to 100 different men who were occupying chairs and teaching positions and clinical positions in the country as to the need of the use of cycloplegia in myopia, and 97% of the men who replied insisted that it was as important to use cycloplegia in myopia as it was in hyperopia. I have found that is the thing that the optician, the optometrist, makes his greatest mistake in; it is in overcorrecting, or so-called overcorrecting, giving a minus cylinder in small errors of refraction in a hyperope who has a spasm of accommodation.

I recall years ago when I first started in practice, an old school mate of mine who had known me for many years came and told me a very sad story. He had a most annoying and distressing blepharitis. His lids smarted and burned and he would get to bed at night and they would smart so he couldn't sleep. He had been going to a middle-aged oculist of reputation and ability, 3 times a week for a period of almost 2 years and having various applications of bluestone and nitrate of silver made to his lids, and he was no better. He came and talked to me casually as a friend first and I, with my ideas of ethics as they had been instilled, said: "Art, I haven't any advice to give you. You are not my patient. Until you are my patient, I am not going to tell you what to do. You are in the hands of a competent man." He came back 2 or 3 times and wanted me to recommend something and finally he said, "Suppose I came to you as a patient, what would you do first?" I said, "The first thing I would do would be to put drops in your eyes and examine you for glasses." He said, "Oh, well, my eyes are all right. I can read a normal line on the card and I am wearing the same glasses", I have forgotten how many years. I said, "Did your present oculist fit you?" "No," he said, "he saw that I could read well." "Well," I said, "that is what I would do with you if you were my patient, but you are not.

so I am not giving you any advice." Finally he came to me and said he was coming as my patient. I said, "All right, tell the other man you want to see me as a consultant, or are coming to be fitted." That man was wearing a -3. Ds and I gave him -2.75 Ds: -100 Dc. axis 180°, and his symptoms immediately disappeared and he discovered he had been wasting his time for 3 years having applications made to his lids for belpharitis and his oculist had been satisfied because he read 20/20 with -3Ds that he was properly corrected.

The men who object gratuitously to the use of cycloplegia assume that the cycloplegic user gives all his patients full correction, which is not true by any manner of means. The fitting of glasses is just like all other departments of medical practice and every patient is a rule unto himself. In my opinion, every patient should have, as Dr. Sherman has said, a careful precycloplegic and a careful postcycloplegic examination.

One thing which has not been brought out, but which I find often is true is this: The patient not only does not take the same spherical correction after cycloplegia, but he does not accept the same cylinder or the same axis, and the court of final resort is "what is the patient going to wear and what is he going to be comfortable with?" If upon another cycloplegia he has his cylinder at 180°, and after cyloplegia, 2 or 3 postcycloplegia examinations he takes it at 165° and isn't comfortable with it at 180°, then 165° is where it should be given to him.

What Dr. Sherman has said is true, another point which has been brought out—as a man gets older and more expert, particularly with the ophthalmoscope and with retinoscopy, there is no doubt about it. Doubtless there are men like Dr. Edward Lancaster and Dr. Jakan and Dr. Skies, who can do good refraction work in 97% of the cases without cycloplegia. I concede that fact, but I contend it is very pernicious teaching for those men to get before medical societies and put in their text-books that fact and convey to the young fledgling in the ophthalmic profession the idea that he can do good refraction without cycloplegia. All of us who have done any teaching of young men are impressed at once with the fact of their absolute helplessness. They are greenhorns when they first begin fitting without cycloplegia. They haven't any idea about it, and we see day after day what the optometrist does when a patient comes in with 6.5 diopters of hycropia; I find some optometrist has given him a +.50 sphere. I feel as though perhaps he didn't do good refraction work without cycloplegia despite the fact they say they do.

I had one fellow, an oculist, that formerly worked with me at Manhattan Eye and Ear Hospital, who said to me, "Emerson, I can do just as good refraction work without cycloplegias as you can with." I said, "All right, I concede you *can*, but you *don't*, because I can cite you a lot of patients I have seen of yours that weren't properly fitted. I will concede to any man that he can when he does it."

Cycloplegia is a distinct short cut in refracting work. It does not take nearly as long to do thorough and careful refraction under cycloplegia as it does without it. The late Dr. S. M. Paine was one of the most skillful men with the ophthalmoscope that I ever knew, one of the most skillful men living. He would, over at the old Manhattan, take a patient in the dark room and sit down with an ophthalmoscope and come out and write out a spherical and cylindrical correction for that patient that you could put in a trial with anybody's first crack out of the box, but it took him 20 or 30 minutes to do it. He would go in there and work and work and work for an eternity, but he was skillful in doing it. So, after all, the whole thing depended on his skill.

For instance, you might hear Dr. Edward Davis speak on refraction and you would think all a man had to have was an ophthalmometer and if he used his ophthalmometer that was all that was necessary to fit glasses.

One man uses cycloplegia and another doesn't; one man uses an ophthalmometer and another doesn't; another man uses retinoscopy and another man doesn't. The man who does the best refraction work is the man who gets a careful history, does precycloplegic refraction, cycloplegic and postcycloplegic, uses an ophthalmometer on every case, which is a great help in illiterates and in young children to give you the approximate axis and aproximate amount of astigmatism, and retinoscopy as well, and then after that takes the personal equation as to what the patient wants, whether he is willing to wear glasses.

Dr. Elias J. Marsh (Paterson): Mr. Chairman, may I add one word? I want to thank you for emphasizing one point you did, that is to say, the amount of time and energy that is wasted by ophthalmologists in eye clinics fitting school children of tender years and very feeble mentality. A good many of them have a low grade of error where, just as you say, they are either going to take the glasses and break them or throw them away in a week or so, or wear them for ornaments and probably bend them like that (illustrating). I wish there were some way the ophthalmologists could get that message across to the school doctors.

Chairman Emerson: The only way you can do it, Doctor, is get in personal touch with them and write letters to them: "Put this down on the child's record card so you won't send them back next year and the next year." That is the thing that makes me peevish. The child comes in and I write a letter and tell why I think it is wise not to give the child glasses. The second year the child is right back. If you get the sanction of the school doctor and the school nurse to have them make a record on the child's school card that even though its vision is below normal, there is a definite reason for it and in the opinion of the oculist there is no indication to give the child glasses, it may help.

FITTING GLASSES; FROM THE OPTICIAN'S STANDPOINT

J. C. Reiss,

President of the Guild of Prescription Opticians of America.

I deeply appreciate the opportunity to discuss with you the dispensing of glasses as it affects you and your patients. There is more involved than the mere selling of glasses. Eye-physicians everywhere are relying today upon the specialized experience of dispensing op-

ticians of the Guild type, assuring accuracy and dependability to their patients. As a result of the present day and modern ideas of efficient service, the dispensing optical business involves problems that did not exist a few years ago. To meet these conditions there must be maintained establishments and equipment formerly unheard of. In this magical age we cannot afford to be old fashioned. Ideas that were accepted yesterday, are considered obsolete today.

Over a period of nearly 40 years' experience I see the optical business in retrospect. In those early days an exclusively dispensing establishment was unknown. We knew nothing of patients. Everyone who came to us for glasses was a customer and we ourselves examined eyes after a fashion. Usually spherical lenses only were supplied. We also filled prescriptions if we had any to fill. All orders were sent to a wholesale shop if we did not happen to have the required lens in stock. These orders were called "specials" because anything differing from the usual assortment which we purchased by the dozens was out of the ordinary. Sometimes we sold ready-to-wear glasses from a tray, according to the age of the purchaser. The power of a convex lens was frequently determined by the old yard-stick method which gave us the approximate power in inches—and we called ourselves opticians.

Today most prescription optical establishments are equipped with modern machinery for the grinding of precision lenses, and intricate scientific instruments for accurately determining the exact focus of lenses, in all their ramifications.

Oculists were also a bit backward in those days. Prescriptions were almost invariably for spherical lenses only. I recall distinctly several doctors who prescribed spheres almost without exception and in many cases made a notation on the bottom of the prescription to the effect that we check up on their test and make whatever changes we thought would be an improvement.

The combined services of eye-physicians and dispensing opticians are on a very different plane today. There are abundant facts which demonstrate that only by correlating our efforts in the union of responsibility toward the patient's best interest can we hope to attain the results to which the patient is rightfully entitled. I will not burden you with the many details that go to make up a modern prescription shop, but I should like to tell you something of the general set-up of such an establishment. Let us, therefore, follow the prsecription which you write, from the moment it reaches the average dispenser.

When the prescription is received, the patient is shown the various styles of frames and mountings until a decision is made as to the best or most suitable type. Patients sometimes require from 15 minutes to an hour to make a selection. The price of each style and material is quoted. The cost of the lenses is quoted separately, enabling the patients to decide for themselves just how much or little they desire to pay for the completed glasses. The facial measurements are then taken and carefully noted. The order is then sent to the prescription department where each detail is tabulated for record and future reference. Following this, the required materials are selected by the stock clerk who sends to the shop a work-card and all the parts called for in the order. There the lenses are ground to specifications and mounted into the frame or mounting, after which there is a careful examination on the lensometer to determine if the lenses are without blemish—if they conform to the prescription in every detail, and if all instructions have been followed. The glasses are then returned to the prescription department where they are again checked up, to make absolutely certain that there has been no error. This double check-up system we have found to be of incalculable importance. Where this system is employed there is very little likelihood of wrong or imperfect glasses being delivered to the patient.

When the patient finally calls for the glasses, he is taken in hand by the adjuster who sees to it that the glasses are comfortable, set at the proper height and tilted to the proper angle. Centering is very important, for no matter how carefully each lens may have been centered in the making, an improperly fitted

frame will often cause considerable damage. This is especially so in the stronger powers of lenses, where every millimeter of decentration adds appreciably to the amount of prism effect. There is the same danger if the frame fits properly but the lenses themselves are decentered. I have seen many such cases and the doctor suffers as well as the patient. Here is a case in point.

Awhile ago a gentleman called at my store and asked to see me personally. He wanted to be referred to a "good eye-doctor", as he said the doctor who prescribed the glasses he was wearing were "no good". This time he wanted a "good one." Where he had procured his glasses I do not know, nor did I inquire, but learned that he was prescribed for by a very able eye-physician in our city. I knew that there must be a mistake somewhere. After considerable difficulty I induced him to return to the doctor who did the original prescribing, to determine whether the prescription was wrong or the glasses themselves were at fault. His complaint was dizziness, nausea and headaches. When he returned to me with the prescription which was for a plus 5 D. spherical in combination with a cylinder, I found there was practically no change from the glasses he had been wearing. I did find, however, in his lenses a decentration of about 3 mm. each, or a total of 6 mm. which should not have been there. This, as you know, produced about 3° of prism, which was the entire cause of his discomfort. The new glasses which we made, gave him perfect satisfaction and no further complaints were forth-coming. Fortunately, in this case, I was able to hold the patient for the doctor who had been unjustly blamed for an apparent incorrect prescription. You see here the possible danger, not only to your patient but also to your reputation, in careless optical dispensing.

As is apparent to you, a well organized dispensing establishment is composed of many departments: the fitting department, prescription and filing department, stock room, shop with its surfacing and edge grinding machinery, its mounting benches, marking and cutting devices, to say nothing of the machine shop necessary to make and keep true the thousands of tools or laps which produce the infinite number of curves and powers of lenses which you may prescribe. There must also be an organization of specialized experts in each of the various departments. Personally, I have taken great pains to train my men in my own methods in order to insure accurate efficiency.

I have given you just a sketchy outline of a few of the operations which follow a prescription. The service to the patient, however, continues long after he has procured his glasses. We insist that glasses be kept in proper alignment and the patient is invited to call frequently to have adjustments made. Until a few years ago very little attention was given to style and type. It was merely a matter of deciding whether spectacles or eyeglasses, rimmed or rimless, were desired. Patients looked upon the prospect of wearing glasses with horror and many hesitated to have their eyes examined because of the fear that glasses would be disfiguring. It is therefore a fortunate thing that glasses are now designed with a view toward embellishment, rather than disfigurement. The opticians are endeavoring to create a pride in glasses which has resulted to a large degree in overcoming the resistance with which we were formerly confronted. However, to my mind frames are secondary to the lenses. The lenses are most important to the patient. Quality of material, skilled workmanship in the production of lenses should be the first consideration of every dispensing optician.

It may not be generally known to you that even the blanks from which lenses are made can be procured in several qualities of glass. In order to produce the finest lens, there must be used as a basis only the highest type of material. This applies not only to the blank itself but also to the abrasives which are necessary to grind the lenses to the required thickness and power. Polish also makes a difference. Formerly all ophthalmic lenses were felt-polished by friction. The modern method and that which is used in the better class of prescription shops, is the pitch-polishing method. This produces a far better surface than can be obtained by the other method. All

high grade microscope, binoculars, camera, and other scientific instrument lenses are pitch-polished.

How important the quality and workmanship of lenses are, may be illustrated by a case which came to me from one of our Newark eye-physicians. This doctor sent a patient to me with a note asking us to examine the lenses which the patient was wearing. Although we did not make the glasses, we were glad to do this for the doctor. The patient complained of severe headaches and had returned to the doctor to tell him he could not wear the glasses he had prescribed. The doctor examined the glasses as best he could with the limited facilities at his command and apparently the prescription had been filled correctly. He checked up on his refraction and could make no change whatever. The doctor, puzzled, sent the patient to me to determine if possible what caused the trouble. I examined the lenses and found the power of the spheres, cylinders, and axis exactly as called for. The lenses were also properly centered and the frame perfectly fitted. My next procedure was to check up on the workmanship and this is what I found: Under strong magnification I discovered what may be described as hills and valleys. This resulted from the omission of one operation in grinding. In other words, the optician who made the lenses jumped from rough grinding to the finishing process and covered it up with the polish. The polish was also very uneven, probably due to a loose or worn spindle on the polishing machine. The result was that the light as it entered the eye through the lens, jumped from one high spot to another, producing the same effect, only to a lesser degree, as the facets of a diamond. I explained to the patient and the doctor just what I had found. We made new lenses and the discomfort to the patient has been completely and permanently eliminated.

There has been much discussion as to what type of lens gives the best results to patients. Together with the great advances that have been made in ophthalmic methods and technic in recent years, corresponding improvements have been made in the materials and execution of the material used in optical dispensing practice. The ophthalmic lens is no exception to this general rule. This is an age of scientific and painstaking analysis and scientific application of these findings to our everyday problems and experience. For several years ophthalmic lenses have been receiving the most exhaustive tests in order to make possible as part of our service to the glasses-wearing public lenses which will fully and adequately represent exactly that which the eye-physician intends when he writes a prescription.

It is a fact that a pair of lenses may be made apparently in accordance with the specifications of a given prescription and yet fail by a considerable amount to fulfill the requirements of the wearer—even though the prescription may be correct. This is because the lenses that are made to fill the prescription may of themselves introduce appreciable errors when the eye looks through one part of the lens, even though they give exactly the desired correction when the eye looks through another part. This statement is not to be taken as a general indictment of all types of lenses except the very latest. For years there have been excellent ophthalmic lenses available. At any given period of time there has always been a standard of quality that represented the best to be had at that particular time. Within the memory of many of us here today, the best obtainable were the double convex and double concave, flat, spherocylindric and spheric types of lenses, which certainly have given excellent results when properly prescribed and correctly fitted. Later came the so-called periscopic, and still later the meniscus and toric lenses which have been the generally accepted standard. Toric lenses do actually render to the user a greater service than did the older form lenses which they have very effectively supplanted. Within the past few years have come still further improvements in lenses and we have the so-called *corrected lens,* which represents a further step in advance of the usual meniscus or toric types. The corrected lens is the latest contribution of optical science to the cause of rendering the utmost possible benefit to the patient.

The problem of the development of a com-

plete series of lenses that will in every power carry out precisely the requirements of every possible prescription is simple enough. It is simply this: to make a lens of any required power that will give that power, no matter how the eye runs, and no matter what portion of the lens area is being used. The solution, however, is not so simple, for experience teaches us that lenses in general do not accomplish this.

All opticians and all eye-physicians know that in checking and measuring lenses, it is impossible to neutralize perfectly from center to edge. When a lens is neutralized perfectly at the center, it is to be expected that there will be a falling off of image quality toward the edges. In other words, the lenses will have one power at the center and some other power at the edge; and the change in optical performance starts at the center and increases progressively from the middle to the margin. When such a lens is placed before the human eye for the purpose of correcting its visual errors, it is utterly impossible for the lens to have the same corrective effect upon that eye when different portions of the lens are looked through. If the lens gives the desired correction for vision through the center, it cannot give the same correction when the eye looks through another part. The corrected lens—the modern lens—is designed to overcome this difficulty. The way in which this is accomplished is by choosing for every power of lens exactly that form, or in other words exactly that set of curves, which will afford the widest possible field of clear vision. It has been found that within a wide range of powers it is possible to choose for every given power of lens a shape, or a form—a set of curves for front and rear—which will either eliminate marginal astigmatism completely, or reduce it to a negligible amount. This form of lens should and does give to the eye the utmost vision possible to obtain from any lens placed before it.

There are a number of types of corrected lenses on the market all designed to produce practically the same results. The question is often asked which type is best. To my mind they are all good and the only practical difference between them arises from the different ways in which the curves are duplicated by the different methods, by the different emphasis placed on the curves of variation in performance between one type of lens and another, and by the amount of departure from the theoretic exactness which is deemed allowable. From the standpoint of the user and the prescriber, these points are insignificant in comparison with the fact that these lenses do have a great and outstanding advantage over other types of lenses. The significant fact is that in the corrected lens we have an improvement—an advance over previous practice—the service we can render is elevated to a high plane of usefulness by more fully satisfying the apparently simple requirements implied, as well as expressed, in the prescription which you eye-physicians write and we as prescription opticians execute.

In conclusion, may I say that you should feel a wonderfully satisfying sense of security in having your prescriptions filled by an optician in whom you have implicit confidence, knowing that the glasses he furnishes your patient will be exactly what you intended them to be. No matter what care and skill an eye-physician may employ in his diagnosis, the result to the patient can be no better than the glasses furnished by the optician. Unfortunately, there are even today a few eye-physicians who do not fully realize the importance of proper dispensing. I am glad to say, however, that eye-physicans are becoming increasingly aware of the dangers that lurk in the practice of allowing their prescriptions to be filled just anywhere that glasses are sold. We must think in terms of accuracy and dependability. We must give the public the benefit of our experience and furnish service and glasses of finest quality.

Discussion

Dr. E. S. Sherman (Newark): Mr. Reiss modestly omitted to tell us that he is the President of the Guild of Dispensing Opticians of America. This is a very young organization and one in which we as ophthalmologists should be interested. Its aims and purposes are desirable, and it has high ideals and a code of ethics. The membership is composed of dispensing opticians of good standing in their respective communities. One of their outstanding principles is coöperation with the ophthalmologist, whom they have renamed the "eye physician", suggesting this name

because of the confusion in the minds of the laity as to meaning of the terms "ophthalmologist",. "oculist", "optician" and "optometrist". They pledge themselves to refrain from all refraction work; referring all persons for examination by an eye physician. Another form of coöperation is well illustrated by the cases mentioned by Mr. Reiss. The first was a patient of mine whom I would never have seen again but for the quiet, tactful help of the optician.

We cannot appreciate the value to us and our patients of a first-class retail optical shop, unless we visit one of these establishments and see the intricate facilities and appliances for accurate grinding, testing and fitting of glasses. Some of us, after prescribing glasses, have the patient return in order to check up on the work of the optician. I no longer do this if I know that the glasses are to be made by an optician whom I know is reliable, as I have found that their errors are negligible. I do give every patient a cordial invitation to return if the glasses are unsatisfactory and have found that the fault, if any, is more often mine than the optician's. Furthermore, very few of us have the necessary instruments of precision for the accurate testing of lenses. We can easily overlook decentration and axial errors.

Another phase of this subject that might be discussed while we have some of the opticians with us, is the retail cost of glasses. This is a more frequent cause of complaint on the part of patients than anything else. Mr. Reiss and Mr. Anspach can both tell us all about this. There are, of course, many reasons why glasses are expensive and this is not a criticism of prices. However, it does seem that in some optical shops over-enthusiastic salesmanship is responsible for dispensing unnecessarily expensive types and styles of glasses to patients who cannot afford to pay the higher prices but do so under the impression that it means an added benefit for the eyes. These patients often return to the eye physician bitterly complaining of the expense they have been obliged to incur. In some optical shops, I am told that the salesmen work on a commission or percentage basis. Under such a plan the tendency to oversell is almost inevitable.

Another matter and an unpleasant one, that I want to refer to briefly, is the practice in some cities of the optician offering, or the physician demanding, a commission on the work referred to the former. I believe there is very little of that sort of thing in this state, but I am informed that this secret, reprehensible arrangement between oculist and optician is quite common in some parts of the west and to some extent in New York. I have not noticed any statement concerning it in the code of ethics of the Guild of Dispensing Opticians, but I may have overlooked it.

Mr. Reiss: It is there, Doctor, but not in so many words.

Dr. Sherman: Mr. Reiss' paper has been a good contribution to our program. I think you would all be interested and instructed, as I have been, by a visit to his wonderful optical establishment in Newark.

Chairman Emerson: One thing which I had hoped Mr. Reiss would dwell on, and I trust he will in the discussion and before I call on Mr. Anspach, and I would like to have them both say a word relative to it, is styles in frames and what is good. For instance, I am absolutely sold on spectacles. I frequently tell people it ought to be against the law to make eye-glasses because of the damnable fit they get. Some look as though they had stood in a corner and somebody threw a pair of eye glasses at them which happened to alight on the face.

Another thing, Dr. Sherman says that he doesn't find it always necessary to ask his patients to come back. I ask every patient to come back. I sometimes have been guilty of writing the prescription wrong, and when I do, I "fess up," I don't pass the buck. I tell the patient that I am sorry, it is my mistake, and I have found the optician, the better class optician, has always been ready to come to my rescue and replace the glasses for the patient without charge. They have been most courteous to me. I think if there is any despicable thing for a man to do it is to side-step and try to pass it on and intimate it is the fault of the optician, because the glasses aren't correct when he has made a mistake in writing the prescription.

I had one lady very much dissatisfied with my fitting and I found out afterward one of the principal reasons was that she had traded glasses with her sister. She said: "My sister isn't having trouble."

I said: "Maybe not, maybe she can wear your glasses with comfort, but it is evident you can't wear hers."

Mr. Eugene J. Anspach (Newark): I consider it a rare privilege to sit here with you gentlemen and I appreciate the courtesy. There is just one thought that I would like to give you and it is that in the fitting of bifocal lenses we all know almost every patient has difficulty in becoming accustomed to them. It is almost impossible to make them set properly in front of the eyes at the first adjustment, so that patients will get the best results. When they come back a further adjustment eliminates the difficulty, but frequently they will return to the eye physician. In doing so, they are under the impression that the lenses are not right. The point that I want to stress is this: of course the first thing you would naturally do would be to neutralize the lenses to see that they are accurate according to the prescription. If that is found to be so, naturally the next thing is to tell them to go back to the optician. In such cases, I would suggest that after making the neutralization, it is not necessary to reëxamine that patient's eyes, which is frequently done. You can save yourselves all that difficulty, because, as I stated a few moments ago, another readjustment of the glasses invariably overcomes the difficulty, usually by a tilting of the lenses.

In regard to frames: so many different types of frames have been put out by the manufacturers in the last few years that it keeps the opticians quite busy deciding what is best for the patient. I look the patient over and decide for myself what I think is going to give the very best results. A particularly good frame has recently been made up especially for children. This is very important, because for years a frame for a child has been either not strong enough or the manufacturer hasn't been able to make it small enough. This particular frame that I refer to has a reënforced bridge, is the right weight and can be had in any size, even as low as a No. 34 size. The frame also has pads. We are recommending this frame exclusively now and the point that I want to stress is that in selecting the frames, the parents usually come along; they cannot decide what is best, so it is absolutely necessary to assist them in selecting the proper frame which, as Mr. Reiss has said in his paper, must be properly fitted. The

fitting of the frame is second in importance to the actual refraction of the eyes and the proper grinding of the lenses.

Dr. Albert Pilkington (Atlantic City): Until the last year or two, there has been practically no opportunity for the ophthalmologist and the optician to discuss their difficulties, and since the Guild has been put on a good basis the opportunity is increasing.

The question of whether an ophthalmologist should check up his glasses, the individual himself must decide; it is essenital to know that the glass put on your patient is of the same strength and in the same relative position to the eye as when you tested. If you are not interested enough to see that your glass gives the result that you ask for, then you are not completing your refraction work. The opticians have in the past been satisfied if they gave you a correct lens. A correct lens with other faults in the fitting and placing will not give you the results that you expect from your test. One of the difficulties we all have is in the air space, the distance between our cylinder and our sphere. We do not get the same glass ground that we had on our test frame. Whether or not the glass is fitted the same distance from the pupil as when we tested in our office depends upon whether or not the patient gets what you ask for.

Fifty per cent of all the trouble probably, and especially as it refers to a bifocal lens, is in the fitting and placing of the glass. The optician has it in his power to either make the glasses usable and comfortable to the patient or to make them uncomfortable and very difficult to use. Take the individual with a low, overhanging brow, receding eye, rather corpulent: The young optician whom age does not compel to have had the experience of the difficulties of a bifocal, cannot appreciate the difficulties of the patient in going up and down steps. The same thing refers to a workman. You have a paper hanger who works at arm's length, you have the watchmaker who works very probably at 7 in., yet how many of us ask the man his occupation and take time enough to think what the difficulties are going to be and put on a bifocal lens for a man of 55 years of age with a very limited amount of range and expect him to work at the bench covering probably 10 to 20 inches?

So, the optician in taking our prescription can do just as much to make our work successful as we ourselves do in testing. We expect our lens to be centered. We expect the segment to be centered for near. When we test for distance, we expect the eyes to be parallel. When we test for near, we expect them in a certain position. Can we guarantee that the eyes are going to come in regularly? Can we guarantee that the dip of the eye, that the position of the insertion of the muscle on the ball is going to be the same on all individuals with the same distance of a glass from the cornea or the lens? It is going to become in the near future necessary that the man who does the fitting, the optician, shall be instructed in the principles of refraction, not for testing, but for its difficulties and to know why we put a glass before an eye and what results we expect to get. He will have to understand the shape of the bifocal, and that the individual who is corpulent, the individual who has great difficulty in going up and down steps and in doing certain types of work, should not have this or that lens. By putting on a sticker and cutting off the segment until you get it down as small as working distance will stand for, you can make a glass comfortable to a workman, and you and I have difficulty to know why it is when we get wonderful vision with our test glasses, they can't go home and use the glass supplied. Fifty per cent of the usefulness of a glass, I say, is in the fitting, and especially when it comes to a bifocal.

The opticians must be taught that we would like them to raise their ability as fitters so that they understand these difficulties and that they are experienced enough so that when we send a patient back where they have the difficulty of a little prismatic disturbance in the eye being off center that they will try by moving the lens a little in or out to get prismatic action on the one side and get a comfortable glass when we ourselves oftentimes don't really know what we are going to do to get rid of it. Hundreds of cases like that occur.

One of the things the average optician is not interested in is the comfort of the frame. I don't know that I see one in fifty that ever shapes the temple. One of the largest optical stores in Philadelphia had me in trouble for a number of years until I went into see Mr. Bender one day, and in two minutes settled it. He taught me one of the finest lessons that I have had in the practice of medicine and the optician, just as we ask our patients to come back and see us after we prescribe a glass, should look upon his work the same way and should ask his customer to come back and see that these things are corrected, because after an individual has worn a glass for 24 hours, there is always a redness of the skin which shows up where the frame is pressing too much.

With regard to the shape of the frame, he can often do more than we can because before the modern white gold frame was brought in, everybody wanted to have two years in Boston by wearing a shell frame. How few centers are the same distance from the nose and in a shell frame can not be properly fitted unless you are going to decenter the lens, and the difficulty with decentered lenses in round frames you all know. So they can do a great deal by suggesting to our patients that this or that is the frame which will give the service that the ophthalmologist wishes them to have.

Chairman Emerson: I stated I was sold on spectacles instead of eye-glasses. I don't say patients can't wear eye-glasses properly. I wore eye-glasses many years myself. I got tired of having to explain to the patient that I could keep my glasses properly adjusted and that they did not, and when I urged them to wear spectacles they threw it in my face that I didn't wear spectacles myself, so I finally gave up wearing them, because I had to insist upon their doing otherwise.

There are a great many people in this world for whom God Almighty himself couldn't fit a pair of eye-glasses so they would set properly on the face. Yet that is just the type of patient that will insist upon having eye-glasses.

Another thing I am very strongly opposed to is round lenses, particularly in the wire frames. They come in shifted, they are turned, even though they are marked, even though they have the mark at the hinge. The mark is small and the patient doesn't observe it. I have had any number of patients who came back when all that was wrong was this: One lens tumbled out and somebody put it in upside down or inside out or off axis.

Another thing I think we doctors make a mistake on is bifocals. Nobody—men are almost as bad as women—will confess they are getting old, and bifocals are the badge of age, and nowadays in so many of our industrial corporations if a man

is old, they don't need him. So when they come in and have arrived at the proper age, 45, for bifocals and you tell them to get bifocals, they say, "Oh, well, I will get a second pair for reading and I will postpone my bifocals for 4 or 5 years", and they postpone using bifocals and then when they put them on have all the difficulty of walking up and down stairs, distortion and that sort of thing. If we could only impress on the patient the advantage of getting the first bifocals when they are 45 years old. I put my first bifocals on when I was 44, and I don't think it took me 2 days to get used to them.

Dr. Elias J. Marsh (Paterson): May I have a minute to tell an instance rather amusing in a mild way and happy in its result so far as it had any? A woman came to me some time ago complaining of great difficulty in reading. She was wearing bifocals and I checked up what she had and the refraction was correct enough, but her glasses were away down on her nose (illustrating) so that the segments were down on her cheeks and practically of very little use to her. I asked her where she got them. The story was this: It seemed she herself had a small jewelry store where she included the selling of glasses—I guess probably she or somebody else had some rudiments of refraction—made some examinations and dispensed glasses. I asked her then: "Who dispensed those for you?" She said she got them from her jobber, I think, according to her own ideas of what they should be. It so happened, as I said, the correction was fairly good. I said, "All you need is a refitting of your frame, proper adjustment of your glasses, and that is a matter that requires a certain amount of ability and intelligence and care". So I sent her to a competent optician and she came back with entire satisfaction with the lenses she had in a different frame. Then she said: "I had no idea, doctor, it made any difference how those things were adjusted. I have learned a lesson now." Since that time she has discontinued dispensing in her own shop.

Dr. Charles Littwin (Englewood): One point I want to make is the question of coöperation between the optician and the ophthalmologist. This calls to my mind a patient I had just last week. She had a great deal of trouble with her eyes and finally after convincing her she needed a cycloplegic and correct re-refraction, instead of what she had which was -50 Dc., I prescribed 225° axis in one eye and 165° axis in the other. She got her glasses, and like Dr. Emerson I insist on all patients coming back for check-up. I don't believe I have ever found anything wrong with the lenses but very, very often I have found the frames are somewhat malfitting. This woman had an awful lot of difficulty with her glasses. She was dizzy. Of course, at first I thought probably it was too great a change in her glasses. Having the courage of my convictions, I insisted that the lenses were correct, and then measuring her pupilary distance I found instead of having a 56, she had a 65 mm. pupilary width. Of course, ordinarily one can see that immediately. I personally took her to the optician, who happens to be just under my office, and I said: "This woman's frames are not properly fitted and I am surprised that you let her go out of your store with a fit as bad as that." He said: "Well, doctor, I spent an hour with her trying to convince her the frames were no good. She had them before, and a new pair of frames, the type that would fit her would cost $8.50. She didnt want to spend that money. I told her: "It is absolutely impossible for you to get any satisfaction unless you buy the new frames. I would rather pay for the frames and then at the end of 2 weeks if you are not comfortable, let you keep them or furnish you with more comfortable ones until we see what is right." She wore the glasses 2 days with the proper frames and now is very happy.

Mr. J. C. Reiss (Newark): I shall take but a few minutes in closing. I have made a few notes as the various speakers brought out the points under discussion and I shall endeavor to answer.

Someone has said in one of the former discussions that the dispensers and the ophthalmologist should stress the fact that eye drops are necessary in examinations. I want to say that is one of the things that the Guild of Prescription Opticians of America does stress very decidedly. As a matter of fact, it is one of the things that we impress upon all possible patients. An optometrist who has no medical knowledge not only hasn't the right to use drops but he wouldn't know what to do with them if he had that right. We tell them it is absolutely necessary in many cases and many things are disclosed by the drop method which otherwise would be overlooked. We advertise this fact very effectively.

There is another thing that hasn't been brought out to which I want to call attention, as I think it is very important. We meet with a great deal of resistance in the matter of sending patients to ophthalmologists. Patients very often think in terms of dollars and cents. They can go to an optometrist, and can have their eyes examined without charge, as they think, and simply pay for the glasses all for one fee. Very often we send a patient to an eye doctor and the patient comes back and says to us: "I didn't have to go to the doctor. You could have examined my eyes just as well. He told me there was nothing the matter with my eyes, all I needed was glasses." I think that is wrong. I dont want to tell you how to conduct your affairs, but my suggestion is not to tell them anything. It is merely a suggestion. If the patient thinks there is nothing wrong with his eyes, all he needed was glasses, he cannot see why a doctor is necessary, and therefore an optometrist would give the same results and the patient would have saved the doctor's fee; that is all many think about. They don't think of results.

One of the speakers has spoken about the fact that the optician has it in his power to either improve your work or make it negligible. I told you a while ago that the results to the patients are no better than the glasses that the optician furnishes. One of the things in the way of adjustment—there has been quite a bit of discussion about adjustments, especially of bifocals—we take a separate measurement for distance. I mean we take the pupilary distance as the patient looks straight ahead. Then in case of bifocals or for reading glasses, we also take the pupilary distance with an instrument that we have for getting the reading pupilary distance. In other words, there is a certain amount of convergence as the patient looks downwards for reading and we take that measurement also.

In making bifocals we also decenter the segment to the extent of the difference between the distant pupilary distance and the reading pupilary distance. That gives us very good results. When the patient calls for the bifocals, we do not just fit them and let him walk out with them. In our establishment we have them walk about. Sometimes they take an hour or an hour and a half. We do not mind how much time they take. We lower

the lenses and raise them, widen them and bring them close together. We angle them and do all sorts of things in order to make them comfortable, therefore experience comparatively little trouble with bifocal patients.

There will be an occasional patient who may have difficulty at first with a bifocal for a few days, but very seldom anything of any consequence or lasting.

Dr. Emerson spoke about spectacles rather than eye-glasses. If he were in our position and had some of the fastidious ladies we see he would find what we are up against when we try to sell them spectacles, which indicate age in their minds. We try our best to do so, especially where cylinders are prescribed, we almost insist upon spectacles, but when we do so, we have found it to be bad practice. A woman will go home, and the husband says: "What did you get those old-looking things for? You go back and have them changed for eye-glasses. I won't let you wear those."

We find those conditions and have to try to satisfy all tastes and whims. That is one of the reasons why we are all the time endeavoring, even in spectacle frames to get something that is different from the old-fashioned, age-indicating types. We try to give them something that looks pretty, more of an ornament, making them now in white gold or gold filled, engraved and chased. Some people like them and some do not.

We have to have all sorts of styles to satisfy all tastes and desires. We give them an opportunity to select their own style and their own frame. They sit with a mirror in their hands, sometimes for hours. They just sit there and admire themselves, they don't like this and don't like that. Sometimes they go out and think it over and come back the next day. We have had them come in 3 or 4 days in succession to decide just exactly what they think they ought to have because they feel it is a terrible affliction to wear glasses, especially the first time. They usually wind up with eye-glasses.

Dr. Sherman spoke something about the apparent high cost of glasses. May I say at this point that when you think of what is embodied in a pair of glasses, the cost is really not high. In a recent survey made by the Guild of Prescription Opticians of America, we had 40 replies to our inquiry, and we found that the percentage of profit, that is, the net profit based on the gross sales of the year previous was less than 7%. If we could go to a drawer, as we did 35 or 40 years ago, and pick out a pair of glasses, instead of taking measurements and making the lenses to order, stick them on a fellow and charge him $1.50, we would receive a greater percentage of profit at $1.50 than we do now at $12 or $15. There would be more profit in our business.

I merely touched on what goes into glasses today. There is one thing I didn't mention in detail. Let me emphasize this fact, that occasionally you men prescribe something of an unusual nature. There probably isn't the tool made that would grind that unusual lens of the proper curve and one which we think would give the patient the best results. In our shop we have our own tool making machine. We make special tools, which takes about 4 hours, takes a man's time for 4 hours, besides the casting on which we cut the curves, besides the motive power, the cutters, the wear and tear on the machinery. Even if we could get a man to work for as low as $1 an hour, the cost of his time alone would be $4. In other words, we figure to make a tool costs us about $7. We could send away to one of the large factories perhaps and get that tool, but that would take a week; and would cause delay, it wouldn't give the service to the patient and to you. We want to get the glasses out the same day or the next day, so we have to make the tool. We never charge the patients for the tool. We may get $6 or $6.50 for the completed pair of lenses. In addition to the $7 or $8, which is the cost of the tool, the cost of the blanks, and the cost of the lenses, must also be figured and all we get is about $6 or $7 for the pair of lenses, but we have accomplished this: We have given that patient exactly what he wants, what he should have, without any substitution whatever, and we have that tool in case of an accident to the lenses afterwards. We may never use this particular tool again, and here is an instance where we do not even get one-third of the cost of the entire proposition.

Also, with all the various things that we do in the way of making these lenses, the cost is not high. We give the patients an opportunity to make their own selection, so as to avoid overselling —I understand that has been done in a great many establishments in the past, but I think it is becoming less and less. We try in every possible way to ascertain the financial ability of the patients to pay for what they select and sometimes we get some very amusing incidents.

But in the matter of allowing them to make their own selection, I told you in my paper we show them all the different frames we have or that they desire to see. Sometimes if a patient is manifestly poor, we don't show him anything high priced, unless he absolutely asks for it. We show them various styles and various qualities. They make their own selection and we quote the price of each individual frame of the various qualities and the various materials and styles, and then quote them the lenses separately and they can make any combination they wish, according to their ability to pay.

The matter was brought up about ethics. Dr. Sherman spoke about that. I want to say to you the Guild of Prescription Opticians of America has a rule that no man can remain a member of the Guild who will in any way pay any commission or rebate to any doctor, nor do I know any doctor in the city of Newark who participates in the slightest degree in the profits of glasses. We have one of the most ethical cities in America today. I have stressed that in our national meetings many, many times, and I am very proud of Newark to that extent.

The next point I have here is when you have the patients come back to you to check up on quality, on fit and so forth. Well, you can do so to a certain extent, but where you have an optician that you can absolutely rely upon, that sort of thing is useless, as I have demonstrated to you in the 2 cases I spoke of, one was Dr. Sherman's case and the other was another doctor's where the surface of the lenses was at fault. Of course, you can tell if a frame is decentered, as Dr. Littwin mentioned.

As to round lenses, we never, if we can possibly help it (unless the patient absolutely insists) allow a patient to have round lenses where cylinders are prescribed. We always mark those lenses. We mark the axis line at the temple end. We always do that, but we tell the patient there is danger of turning, and making them slightly oval prevents that.

Regarding types of bifocals, I believe something was said about the kind of bifocal to be given the various patients for walking up and down stairs. We do not advocate any particular type. We as-

certain so far as possible what their occupation is and what they want to use them for and while we don't have to go to the trouble of cementing segments on and taking them off and cutting them down, as has been suggested here, we can get the measurements accurately, so we have very little trouble in that respect, and we give patients the type of bifocals they should have and best suited to his or her particular use.

Someone has also said about optical fitters, that they should have experience in refracting and all that sort of thing. I don't think that is necessary because the men in my employ, some of them having been with me as long as 25 years, know the business from the ground up; they have worked in the shop, and were gradually promoted. It is a promotion when we put them out as fitters, we teach them all the various things that go into fitting, and they know exactly just what is necessary.

As for distance from the eye, at which lenses should be placed, we try to set the lenses usually about 11 mm. away, that is the average, and we tilt them about 10° and a little more for reading. We get fine results in this way, but what will work in one case won't work in another. You have to vary these things according to your patient.

Dr. E. S. Sherman (Newark): Mr. Reiss made a statement which I think if his attention were called to it he might modify slightly; namely, when he told us in his discussion that in effect it is the policy of the Guild of Prescription Opticians to tell patients that all eyes should be examined under drops, in other words, they should have cycloplegia. It seems to me that if one is going to make as broad a statement as that to our patients or prospective patients, it may lead to some embarrassment, because I think every one here will admit there are certain cases which for any one of several good reasons do not need or should not have a cycloplegic. Therefore, if you are going to tell people who are coming to us they can't have a satisfactory examination unless drops are used, it will to a certain degree cause embarrassment. If you will tell them that they may need drops, that drops are essential in some cases it would be better, and that the judgment as to whether the drops should be used be left to the doctor.

Mr. J. C. Reiss: If I gave you that impression, I did not mean it that way. What I meant to convey was this: The patients come to us and when we talk to them about going to an eye physician, they very frequently say: "I dont want to go to an eye doctor because he will use drops. The doctor did that with a friend of mine and put him out of business for a week or two. We always tell them if the doctor thinks it is necessary, then it is the thing to do. Then we go on and tell them about the optometrists who can't use drops, when they tell us the optometrists say drops are dangerous. We tell them they are not dagnerous in the hands of a man who knows how. I didn't mean to convey that we tell them they have to have drops in every case.

Chairman Emerson: I think there is one way we oculists may help the high-class optician very much, and I make a business of it. If the patients don't want to go to some optician to whom I refer them because he is such an outrageously high charger, as they say, and there is no excuse for paying $20 or $25 for glasses, I say to them: "In this world you get just exactly what you pay for. If you are going to buy a suit, do you go to Siegal-Cooper's or do you go to Altman's. Your husband can get a suit of clothes from Sears Roebuck for $10 or $12, but does he do it? When you up to Altman's you pay for their rent on Fifth Avenue; you pay for the carpets on their floors; you pay for the clothing on the backs of the sales women, and you pay for expert service which you get. When you go up there and pay from $60 to $100 for a suit, which you do, is that suit worth that? Is the cloth that is in it worth it? No. Why do you go then? Your eyes are as important as the clothes on your back, or your shoes. Why do you go to Hannan's and pay $22 or $25 for shoes when you can get a pair for $3?" That opens their eyes many times.

In Memoriam

HUGHES, Morgan D., of Bloomfield, died October 23, 1929, at his residence, 1 Park Place, after an illness of 6 months.

Born in Elmira, N. Y., August 25, 1866, Dr. Hughes was graduated with the degree of doctor of medicine from Niagara University in 1898. He practiced in Layton 8 years before taking up his work in Bloomfield, which he continued for 22 years.

Dr. Hughes was a member of the senior surgical staff of St. Mary's Hospital, Orange; the Essex County Medical Society; Salaam Temple, A. A. O. N. M. S. of Newark, and a charter member of the Newark Athletic Club.

Esthetics

THE PERMANENCE OF VALUES

Richard C. Cabot, M.D.,

(Reprinted from the Survey Graphic)

I shall ask a question, give an answer, and then try to suggest why I believe it true.

What can give values permanence? For reasons that will soon appear, I am not going to try to say which values are permanent. But if one knows a "value"—that is, a good, an end, a goal, that one is perfectly sure is good and ought to be permanent—what can one do to make it permanent or tend to keep it so?

By "values", as I have said, I mean nothing more than what some one desires. The good, the true, and the beautiful, progress, efficiency, freedom, self-expression, good case work, family life, economic soundness, love—those are some of the hundreds of things that you and I want, and that exemplify what I am talking about. I make no attempt to select those which are or ought to be permanent, but address myself wholly to the question.

My answer is: *The quality which can make values permanent is their interrelatedness one with another and with the whole.* Insofar as they are interlocking, tied together in memory by people who do not forget any, combined as the notes in a chord of music, integrated as the nervous system integrates the activities of the body—insofar as they are a member of such a system, they will be, I believe, permanent. Now some attempts to prove this.

In the first place, I think it can be shown that *any single value* that we can name, *no matter how good, by itself tends to get arid and stale.* One can hardly any longer mention seriously Matthew Arnold's remarks about "sweetness and light." They were perfectly true in their time and place. But when one has wallowed for a time in sweetness and light one feels like saying, "Give me a hard fact with some bite to it—anything to get out of sweetness and light." On the other hand, if we have a reverence for a fact, as I do—for any fact, so far as it is a fact—still do we not recall some day in our lives when we have been so swamped in facts that we would give anything to find out what will redeem their factuality? We can get as tired of facts as we can of sweetness and light.

Or take two often alternating values. Some students in some colleges (contrary perhaps to your ideas of students) want to learn—for a time. But towards the end of college there comes a moment when they do not want any more learning, just as at the end of a good dinner we do not want any more food. That time may arrive before the end of 4 years, but in any case it arrives sooner or later. Then the student is eager to stop learning and get a job, to stop taking things in and begin to put out something. But later, after a certain number of years of giving out, people have a similar hunger to go back to school and learn some more, to stop giving out and begin to take in, so as to get the reservoir filled again.

One might interpret this as mere fickleness of human nature that swings from one extreme to another, and not as the interrelatedness and need of each value for all. But consider in a concrete case how we labor to make a particular value permanent, not by getting away from it (as by a swing of the pendulum), but by making it interlock and interweave with other values.

Take the value called "love". If you want to make love permanent, what are you going to do about it? You are going to summon every allied interest that you can find, and you need them all. You must have seen many instances where two people start out in love and think they are going to keep their love alive forever just through loving each other. But love, to be permanent, has to draw into itself the other values: the value of reform, civic, social, institutional, personal (what deepens life more than to be working together for a good cause?); the value of beauty (how often have you felt in the face of some great beauty of nature or art how your love for another was deepened as you both faced that beauty?); the value of learning together, hand-in-hand with the person you love. Isn't that the way to deepen and make permanent our love? Suffering, too, in a good cause, is a real value as I see it, an experience that we ought to desire in its proper place. Surely it is something that tends to make permanent the love of those who go through it together.

I have taken a value which we all agree is real and which we long to see permanent. Isn't it true that the way to make it permanent is to interlock it with all the other great values we can think of?

Or take science. I do not believe anybody can long keep alive the passion for knowledge unless he interweaves it with other human activities. One cannot dig very long at science without wanting to discuss with somebody, to get the stimulus of another personality, to print or speak. One of the greatest scientific men that ever lived, Louis Pasteur, told his students to "live in the serene peace of the laboratories". He seems to say that this holy grail of the striving for truth can there be

preserved, enriched, and continued without any admixture of other human interests.

Was it so in Pasteur's life? No. Nothing ever stirred him more deeply or was more productive of new truth through his labors than the bite of a mad dog on a child. From that came years of furious work, suffering, disappointment, and final joy in the discovery of preventive inoculation for hydrophobia. Pasteur was intensely devoted to his family, and drew his family body and soul into his scientific life. Some people think it was too much so, but certainly his family and his laboratory were almost one. Finally, nobody that I have studied had a more real religion than Pasteur, or better saw the interlocking of the finite and the infinite in daily life.

I have been a lover of music all my life. I know, as all of you who love music know, that you cannot keep on loving music unless you do something else with it. You have to understand it, to go into it, to see something of the personality who is speaking through that music (for all music is the spoken sentence out of the mouth of some personality), and back of that the age, the race, and the world-current from which he came. Artists are always longing to get themselves linked up with the rest of the world. Watts wanted to decorate railway stations. As I have seen artists, they do not want to think of themselves as people set apart, as a cult. They may talk about art for art's sake, but they do not want it exotic and separate. They want it mixed with all the other arts of decoration, dress, speech, love, locomotion, and so woven into all we do.

The unity of all values that are to survive, this integration of their survival, is suggested again when we recall the familiar experience, that if we care intensely for any one thing or person it makes us more able to care for any one or anything else. Lowell tells us that "love of all things flows from love of one," and to Emerson, "all things through thee take nobler form." In a rather spectacular form we see this at the time of an engagement in marriage. Whoso intensely loves another human being becomes at this moment more able to appreciate nature, literature, art, than ever before. The deepening of a single value strengthens our whole power of valuing, our central organ of valuing. Love called out in one field can be developed and then applied in other fields, because values are structurally integrated as the senses are in the brain. We do not see or value with the eye, we see and prize with the mind. The proof of that is that different people facing the same objects see different things, differently, in correspondence with the minds that they bring to it—the man behind the gun, the mind behind the organ. There is no competition between the messages that come through the eye, through the ear, and through touch, because they all inform a single central mind.

Many of you had quoted to you, and probably many have spurned an old line of Browning's which yet seems to me to have here its truth:

> Grow old along with me!
> The best is yet to be.

"How could a man write such a thing?" we say when we face old age as it is, and see people losing their eyes, their ears, their muscles, their brains. But what Browning meant, I think, is that because we can learn to value everything by valuing anything intensely, we become, as we grow older, capable of loving more people, more books, more works of nature and of art, more jokes, more jobs, so that in a sense "the best *is* yet to be" for as long as we can *in this sense* grow old, not by senility but by *loving with* all that one has learned.

Think of this in relation to your knowledge of Shakespeare. Your love for any single play is multiplied and illuminated by what you find in his other plays. If you read one new to you, you penetrate into its value with the force of all that you have cared for in the rest of Shakespeare. You care for any single work of Brahms with the whole range of your liking for the rest of his music. As our appreciation of the whole of Shakespeare, as the amount we are capable of caring for any single piece of music depends in part on how much we are able to care for the interrelated works of the same master, so as we grow, learn, and work in any part of the world we increase our power to care for any other part. I believe people tend to get warmer, not colder, as they grow old, to appreciate more and to live less in the suspicious or pugnacious attitude which blinds our appreciation. One comes to recognize a single quality—what one might call *"world-quality"*—in many different lovable things of the world, in science, art, or action. This love of world-quality is religion.

So we can approach any unknown but possibly lovable object or person with all the strength of valuing which we have previously accumulated. Suppose there was discovered a new play by Shakespeare. Imagine yourself bending reverently over the book to start reading that new play. An onlooker might say, "This is mere hypocrisy—you don't know

what you are going to see." In the same way I have heard people very cynical about the conversational phrase, "I am pleased to meet you," spoken to an utter stranger. But you *are* pleased to meet another member of this fascinating, puzzling human race that you have known so well already. You have found so much that is likable or interesting in human nature that you *are* "pleased to meet" another member of it even though you don't know him. I have often tried to think on what ground one can justify the smile, the bow, the attention, the polite words with which you greet any new person or new interest. I think this is the answer. Hope, faith, confident expectation take the hypocrisy out of it.

It is a common experience that when we have gone through anything especially vital to us, anything like the last War, the loss of some one dear to us, or a great failure in our own work, or a great success, we begin to see all the old familiar furnishings of the planet with somewhat different eyes. You go back to your fight for free speech, your reading of George Meredith, your tennis, or your playing of Bach, your club work, or what you have previously seen in Millet, and you find something more, better. How could this be unless values come to a single center and get their permanence in that?

Values unite and are included in a person. If you know any man of science, or art, or other outstanding field of accomplishment, you notice that no matter what he has done he is bigger than that, bigger because that value and the other values are united in him. I am thinking of Stevenson. Think how the different expressions of Stevenson's personality interlock with each other to contribute to make the total personality who is greater than any or all of them. Think of Stevenson's verses in the light of his travels, think of his travels in the light of his verses, and of both in the light of his novels; or of his dealings with the Samoan people, or of his love for his father (despite bitter differences), or of his relation to his wife and the way he went after her, of what he thought about Burns, or of the way he fought tuberculosis. When we call up Stevenson's personality we hold something that unites all these and more, as the notes are united in a chord. It is the personality of Stevenson, greater than any or all of his deeds, that gives us the unity which is the preservative of all the values in his work and life as we know them.

If there is a single value that we might all agree to be eternal I should say perhaps it is humor. What survived out of the Spanish War, what was eternally valuable in all that foolishness, except the writings of Mr. Dooley? No matter how tawdry that war was, Mr. Dooley's picture of it survives. Yet is there anything more mournful in this world than a professional humorist? Why? Because, like any other value in this world, humor cannot live by itself.

Why are the annual reports of charitable societies such arid reading? (Having written a good many of them I am willing to say how bad they are.) Because just at that moment, while your hand is penning the would-be immortal document, your mind is not aware of the great values that are really incarnate in social work. Can this awareness be won? Yes. Think of Dr. Samuel G. Howe's reports. Because Dr. Howe was so much bigger than any of the parts of social work that he touched, because he cared and fought so passionately for the freedom of Greece, because he hated Turkish tyranny and Negro slavery, he could write such wonderful words about the enfranchisement of the feebleminded and the blind. I sometimes think that nobody ought to be allowed to write an annual report who has not taken a course in Dr. Howe's reports.

I should say, then, trying to make further practical application of my thesis and to follow up what I have just said about annual reports, that when we face any supposedly valuable unit in human life: a court of justice, a hospital, a family group, a settlement, or a factory, one ought to say, "How far has this bit of life succeeded in weaving into itself all the essential values of human life, or how far has it got off, stranded like the poor humorist who has to make jokes for a living? If we have any doubts whether the family is going to survive, isn't it because we have doubts whether into the family have been interwoven the great world-values that you and I believe should be there?

I assume that this integration of values, this harmonious kingdom of values, is the glory of religion. And so, because of the peculiar make of this creature called man, we are restless until we can bring all that we love into its unity with God. How it amazed St. Augustine when he thought of it: "Man that bears about with him the witness of his mortality, yet would *he* praise Thee! He but a particle of Thy creation! Thou awakest us to delight in praising Thee, for Thou madest us for Thyself and our heart is restless until it repose in Thee."

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE

CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

CONTENT OF THIS NUMBER

It may be excusable to direct special attention to some features of this issue of the Journal. In selecting original articles for praise we generally run the risk of making invidious comparisons; and that we certainly would not do intentionally. This month we are not confronted by that particular difficulty, because it happens that we are publishing 2 very interesting symposiums and members especially interested in the subjects of "tuberculosis", or of "refraction work" will find entertainment and instruction in these 2 groups of papers that were read at the Annual Meeting last June—and can read the whole or select for themselves those articles of greatest probable personal value. We need only favorably commend these two series of papers, and their accompanying discussion, to your consideration.

The subject matter of the papers by Drs. Jackson and Paddock, read before the Section on Pediatrics, seems to us of sufficient importance to justify special consideration, and we shall deal with it in a separate editorial on "standards in hospitals". Those of you who are concerned in, or responsible for, hospital management, should not only read these papers but earnestly consider whether any of the criticism can be applied to your institutions; and, if applicable, you should at once proceed toward the improvements indicated.

Dr. Bradshaw's report of his first aëroplane ride is not only entertaining but, we venture to predict—prophetic. We are apparently now at a stage of air travel comparable to that of progress on earth when the automobile suddenly burst upon us as a vehicle practicable for the mass of mankind. There was a long period of experimentation with automotive machines, and a shorter period when we looked upon the "auto" as a rich man's toy, and then, all of a sudden, over-night as it were, the "car" was perfected and made available to nearly everybody. Similar stages of progress with flying machines are evident.

Under the headings "Esthetics" and "Collateral Reading" we offer you special articles culled from recent general literature and written by eminent authors who have given deep thought to subjects of great import to the medical profession. Read them!

Current events covers the annual meeting of the A. M. A., held in Portland, Oregon, this year, and the meeting of the Pennsylvania State Medical Society held at Erie in the early part of this month; these condensed reports serving to inform you concerning several matters of importance to members of our own state organization. Our other neighbor state, New York, also held its convention in June and we shall refer in another editorial to some of the transactions reported from that medical society.

STANDARDS IN HOSPITALS

That these last few years have brought unusual activity in hospital building in this state, must be apparent to everyone. The scope of this activity, however, has largely been confined to brick and stone, to equipment, to the physical embodiment of the home of the healing art. Into many of these new homes have entered old and sometimes outworn hospital organizations, resting on somewhat unsatisfactory methods of financial administration.

Such a change is hailed as progress and acclaimed with the satisfaction which comes from the glow of possession of new things. Little cause for self-satisfaction, however, exists in many of our hospitals, which, within their new walls, and in possession of their glittering equipment will continue to pursue methods of administration and methods of recording already shamefully inadequate. Such institutions sometimes enjoy an undeserved classification of "fully approved" emanating from the College of Surgeons.

If these institutions represent the present interpretation of the College of Surgeons on its published standards for hospitals, the College is losing its opportunity of wielding the power of standardization which its plan of rating affords. If some hospitals are fully approved, but are not required to live up to the standards, then the whole purpose of the method of rating fails. A wide scattering of fully approved ratings may lead to the satisfaction felt by those who receive largesse, but gives little stimulus toward betterment of the hospital situation. Whatever benefits may accrue from our present glittering panoply of new hospitals, most of us will agree that the care the patient receives is directly dependent upon the personnel, organization and financial backing of the hospital. As regards function of the hospital, the best is none too good.

Back of the whole situation in some communities a stagnant or even declining financial appropriation from the community is partly responsible. This must be considered, and corrected, if progress is to be made, but is no sufficient excuse for lowering our aims. Quite the reverse, since only by keeping a high standard will the necessary appropriations be gradually adapted to our need. When the needy institution, as often now, is rated as "fully approved" there is no incentive for increase in financial support, since the stamp of approval implies satisfaction with prevailing conditions. Were the rating lower, as would seem proper in some cases, the incentive would be immediately supplied.

There appears in this issue an article which brings out in plain style certain ideals and standards which are as yet largely unattained in many of the medical institutions of this state. To strive for them earnestly would bring the hospital, the embodiment of the doctor's art in the community, to a position which would represent more truly the best work in medicine. This means a real attempt, at least, at standardization. The first step should be the award of ratings to hospitals in a manner more strictly in accord with our published and established standards.

REGULATING PRACTICE OF SURGERY

Some of our readers will recall the fact that the last General Assembly of New Jersey had under consideration a special Act designed to control the practice of surgery, general and special. As drawn, the Act was extremely radical and utterly inappropriate for application in New Jersey or any other state at the present time, and we successfully opposed its adoption. It must be admitted, however, that whoever drafted or sponsored the Act was dealing with a serious situation and aiming at a higher ideal. If any physician or surgeon doubts the need for serious consideration of this topic, we suggest that he shall listen to and try to answer (as we have been compelled to do) the complaints filed against the profession by legislators and other intelligent laymen; tales of alleged malpractice that cause reputable members of the profession to blush with shame that such charges can be made against anyone entitled to practice the healing art. The public will not be asking anything unreasonable if it demands that surgeons, general and special, shall present evidence of fitness before being allowed to practice in their respective fields. We ought not to wait

for such a request; certainly should not wait until the request is made in the form of a legal requirement. We are proud of having raised the standards of medical education without compulsory action. Would it not be well to correct the evils that every medical man knows exist in association with surgical work?

We discussed this question in our annual report to the House of Delegates (Supplement to September Journal, page 8) and asked that a special committee be appointed to study the situation and propose a remedy. The House referred the matter to the Welfare Committee, and at the first meeting of that body, held October 27, a subcommittee was appointed to take this problem under advisement. That the matter is not purely local was shown by the fact that Dr. Harry R. Trick, of Buffalo, in his Presidential Address to the Medical Society of New York, discussed it in the following reference:

"Our state society has long been recognized as a pioneer in the establishment of appropriate standards of excellence (requirements) for those who would study medicine; for the graduate in medicine and for his licensure; but there has always been a serious defect in our system of standards. This defect has been responsible for the infliction of many an injustice on the public and consists of an utter lack of legal standards for the specialists. This fault or defect is becoming more and more apparent with the rapid increase of specialism in modern medicine and should receive your thoughtful consideration".

Acting upon President Trick's recommendation, the New York State Society adopted the following resolution:

"The committee recommends that the Medical Society of the State of New York memorialize the Regents of the University of New York with a view to establishing some method for the legal certification of competent specialists".

The question may be easier of solution in New York than in New Jersey because we have no authoritative body comparable to the Board of Regents to act in such matters, but it is to be hoped the Welfare Committee will find some way of at least starting remedial procedures.

POSTGRADUATE STUDY

In his report to the House of Delegates in June, Secretary Morrison (Supplement to September Journal, page 4) spoke of plans for a University Extension Medical Course to be given under the joint auspices of Rutgers and the State Medical Society. At his request a special committee was named to confer with President Thomas, and to inaugurate such courses for the special benefit of our members living in districts remote from large medical teaching centers. We are informed that the committee has been busily engaged during the summer months and that an announcement of plans, with full details, may be expected at an early date. It is the duty, and should be considered the special privilege, of every professional man to be constantly studying, constantly endeavoring to keep pace with progress in his chosen field of labor, constantly adding to his store of knowledge, and, consequently, steadily improving his professional ability and worth.

While in London this summer we chanced to read an advertisement in "The Thunderer" (Selfridge and Co., in London Times, Aug. 2, page 10) which though written as a "trade ad" seemed quite apropos to our need for continuous study; hence we quote that article, which was entitled "The Fight Against the Elements":

"If a man builds a house and leaves it exposed to the sun, the wind, the rain, the frost, it will, from the very moment when he ceases to put work into it, begin to decline unless he continue to be a builder, to use paint and timber and cement as occasion arises; the elements will undo his work and all will return through destruction to nothingness.

It may take only a few years, it may take centuries: but infallibly the creation of man's hands will deteriorate and dissolve unless man's hands continue to be creative. His works may last as long as the pyramids or be destroyed in a season like a breakwater in a storm, but peace is never declared between them and the elements, and unless man fights he must be defeated.

This is as true of man's character and of a man's business as it is of his monuments and his houses. Unless he goes on creating and constructing new force in his character, new forms of service in his business they will infallibly succumb to the inertia which lies like the sea around every effort of man's spirit.

Most of us have seen with regret the young man who, perhaps, after leaving public school or university slowly declines from progress to stagnation, from stagnation to deterioration because he has allowed to die within him the determination to build a finer personality. He thinks his education was complete when he took his degree, and he ceases to strive. He becomes less ambitious, less interested, and finally even less intelligent."

Travel Article

FROM CHICAGO TO THE MAYO CLINIC IN THREE HOURS

(A letter written in the air 3000 feet above the earth.)

John Hammond Bradshaw, M.D., F.A.C.S., Orange, New Jersey

As I write this letter I am able to look down on other writers with superior airs. It is now just 3:05 p. m., September 10, 1929. Five minutes ago I entered a 12 passenger tri-motor Ford airplane. As it cost $45,000 to build, one would not call it a "tin Lizzie", although, being all metal, its surface looks like tin. Our take-off seemed the easiest thing in the world. Before starting, I was given a sealed package, like a small package of peppermints frequently given after dinner at a hotel; but on opening it I found a little wad of cotton for my ears. This is a wise precaution, as 3 propellers driving through the air at so many thousand revolutions a minute make some noise. At first the noise is unpleasant, but as the speed increases it becomes a loud droning hum that, after a half-hour, one forgets entirely.

We have just left the Chicago Airport of the Northwest Airways, Inc., to which I had been transferred from the Pennsylvania Railroad at the Company's expense, although I must admit I paid them 30 good dollars for my air trip to Rochester, Minnesota, from Chicago. Now, Chicago from the air looks, I suppose, like any other big city, but as this is my first experience off the earth, the view is really enthralling, with great Lake Michigan reaching far out to the northward and the huge sky-scrapers looking from this height like children's blocks divided by narrow white streaks of avenues or roads and boulevards. I am sitting now just behind the pilot and am interested in his (to me) novel technic and his easy navigation of the air. The dial registering our elevation is most fascinating to watch. A stiff wind is blowing in our teeth, but here I sit in an upholstered arm chair with comfortable padded head-rest, without even my overcoat or my hat, and I can smoke a cigarette with much more comfort than if I were riding in an automobile. I even can write on my lap-pad without any of the tremor given by a train, or any ship I was ever on while crossing the big Atlantic. Moreover, I am astonished that we glide so smoothly; there is no side-swaying, and the only "bumps" I feel are gentle and like those experienced in a small boat when riding the waves. In fact, it is difficult to realize that the medium through which we sail is not of fluid consistency. It is very hard to believe it is but thin air. The day is superb. Two days of rain have washed the air so that even over murky Chicago it is as clear as crystal. The view can perhaps be compared to that obtained from any high mountain, with the important distinction and difference that, instead of remaining stationary, one glides over a constantly changing fascinating panorama.

The suburbs of Chicago look to me like toy villages, but we quickly leave the thickly inhabited and dusty world and pass into the great Wisconsin farming country. We are travelling over 100 miles per hour, but this is only brought to my conscious mind when we parallel a state highway and pass automobiles doing their paltry bit of 40 or 50 miles. These cars appear to me almost to stand still.

I doubt if anyone realizes what a wonderful dairy product state is this State of Wisconsin until its beautiful farms pass in rapid survey as seen from the air. Hundreds and hundreds of farms all have one or more silos and fields of growing corn and herds and herds of browsing cattle. It is the most prosperous looking farming country I ever saw. From this height the cattle look like mere insects, while if you see a pedestrian, he looks like a little peg stuck firmly in the ground. Please remember, that all this time you can hold a glassful of water in your hand and not spill a drop. If you are weary, you can walk the length of the cabin (about 20 feet). If you are thirsty, an attendant will bring you a glass of Canada Dry. If you are too warm, you can slide the plate glass of your window (not like railway car windows that defy opening) and even put out your head.

To me, the most wonderful sight is to watch the cloud shadows pass over the landscape, and there, right behind us, sweeping over the ground, is our own shadow cast by our plane. If you want to realize your speed, just watch that shadow. It simply sweeps over the houses, trees and fields. It is always there, like a guardian angel, and (in sunshine) it never leaves us. Now one is much interested in the crops; and how can one see them any better than by taking a bird's eye view. The fields of grain have at this time of the year already been harvested, but the corn—the corn—the wonderful fields of corn! They look like roughened green patches of wool

on a great Turkish rug. You absolutely forget all sense of danger as your interest is aroused almost every minute. We are truly flying in space; it is absolutely unearthly; the sky never looked so blue. Soon you pass over funny little glassy lakes that you think must be panes of glass in a child's garden; in fact, the earth lies beneath you looking also like a patchwork quilt of many hues and patterns. Possibly the relief from the tension of "back-seat driving" adds to your enjoyment, as you know there are no corners to approach cautiously, no traffic cop to bawl you out, no children to leap in front of you unexpectedly, and no possible obstruction on the highway. If one could only have this feeling of serenity while playing golf, what a champion one could become.

But we are now approaching the bluff country in the vicinity of the great Mississippi River. Below us streams trickle their course, looking like squirming snakes. There ahead of us is a sheen of light, winding its divided course through the uplands, and we know that, like de Soto, we are viewing the mighty Mississippi. But on what a bridge of air we are traversing that river! Our plane now drops to a lower level—perhaps a few hundred feet only above the farms and the streams. We can even distinguish small objects—little flocks of white chickens see and hear our presence and hurry to cover as if we were a gigantic hawk swooping to their destruction.

We are now gliding into the sunset and now we can even see the high tower of the new Mayo Clinic building surrounded by the little town and the little sluggish Zambro River. Our propellers are revolving more and more slowly and finally stop while we gently glide without bump or shock onto the great stretch of greensward of the Rochester airport. Here automobiles are awaiting the arrival of our plane which, for several years, has always been on time. The Rochester passengers smilingly slip out and in 5 minutes the great bird rises again in the air to continue the 40 minutes farther journey to St. Paul and Minneapolis. We have come a distance in 3 hours that the fastest express trains take from 10 to 12 hours to cover. Excuse me if I claim that it is a thriller of thrills!

* * * *

The above notes were written while in the air. Now for a few facts. The story of this pioneer air-mail company goes back to the summer of 1926. The route is a good one. There are no mountains to crash into, and there are no fogs. Strange to say, railroad men who are vitally interested in transportation are the greatest boosters of the airway. Colonel Lindbergh was in 1926 an obscure pilot who had not crossed the Atlantic. He is now the company's chief adviser. Mr. Hill, the son of James J. Hill, the famous "empire builder", put his fortune back of the idea. The company placed an order for a number of Wasp powered planes built by the Ford Motor Car Company. These ships have a cruising speed of 115 miles per hour with a maximum speed of 140 miles. They carry 12 passengers, 2 pilots, and several hundred pounds of mail and hand baggage.

They completed their first 1,000,000 miles of travel last spring without even scratching a pilot.

Note: On the day I took my first airplane journey, I read on the train the Pittsburgh Gazette, Tuesday morning, September 10, 1929. On the first page were the accounts of the following accidents (one day's news):

(1) One killed, 5 injured when electric cars collide.

(2) John Philip Sousa, while travelling through Colorado, was severely shaken up in the wreck of his train. Several men were injured.

(3) Six children leaving school hurt by an automobile.

(4) Two steamers crashed at sea.

(5) Golf ball blow claims life of banker's wife.

(6) Tom Mix breaks shoulder when his horse falls.

(7) Miles Scannell was shot to-day and stabbed 15 times. (Scannell was a patrol officer in Texas.)

(8) Train wrecked and 5 killed.

(9) Grade crossings kill more in 8 months this year than in all 1928.

(10) Zaro Agha, a Turk whose age was estimated as between 143 and 155 years, has succumbed at last. It was no disease germ that brought his end. It was a device of the modern age that got him—the automobile.

So we see, when we reflect, that it is not absolutely safe to remain on the earth. Even pedestrians have been known to be killed. New York's street deaths number over 1000 per year.

You can take your choice.

Medical Ethics

WHY WORK?

What is the motive that makes big men work? Is it money? Is it a desire for power? Is it the satisfaction of achievement?

There is a deep-rooted superstition widely held that the significant work of the world is done for money. It isn't; it never was and never will be. This is because there are finer things to make the impulses of life than money.

It takes a great deal of money to equip and to maintain our national game whether there was little money in it or much.

During the war, down in Washington some of the ablest men living worked for a dollar a year. Even today there are men in the Government employ working out important problems for monetary compensation that would be scorned by any New York bricklayer.

What holds these men to their work? What takes them all over the world on voyages of discovery?

Nothing but the worthiness of their work and their joy in it.

Not only is virtue its own reward: much of the work of the world is its own reward.

When a man realizes that there is something in his work besides money he begins to get more joy out of his work than any amount of money would buy.—*A. Booster in "The Ambassador."*

Medical Economics

"THANKS, UNTIL YOU ARE BETTER PAID"

J. George Wanner, M.D.,
Green River, Colorado

(Reprinted from Colorado Medicine, 26:120, April, 1929)

Ten thousand curses on the fiend in human form that coined the above phrase. There are a few others in the same category, such as . . .

"I'll be around tomorrow with the money."

"Spare no expense."

"You don't know how much I appreciate this."

"Just put that on my bill."

"As soon as I get paid."

"As soon as I sell my oats . . . hay . . .hogs . . . ad-infinitum."

The next time, doctor, that you step in to buy a suit of clothes, some new office furniture, or an automobile, just try one of the above on the benign merchant. Watch the transformation in his facial expression. At first, perhaps he will think you are joking. As the seriousness of the import strikes him his countenance will do a rapid transfiguration that would put Lon Chaney to shame. After a lot of confab you may get the credit, but 10 to 1 you will have signed legal documents enough with which to paper your reception room.

What a different story when you are on the other end of the bargain. When a patient slings one of these worm-eaten excuses or evasions at you, what do you do or say? If you are like about 75% of your brothers, you smile weakly and agree, "Oh, that's all right; sure, yes, that'll be fine." Does the patient come back? Does the money come rolling home? Sometimes, after you have waited from 10 to 50 times as long for it as any other business man would and, sad to relate, too many times you just wait and wait and hope.

Now is the time to buck up. Not only concentrate on collections, but do more cash business as well. Make your patient feel that not only is his presence in your office a professional visitation, but a business transaction also. Do not wait for him to lay down the terms on his departure from your office, but anticipate this in a tactful manner with an appropriate statement or suggestion on your part, such as, "Mr. Jones, I presume you wish to make payment for this now." If he balks or makes excuse for extension of time, get out you pencil and pad requesting that he give you his full name, address, place of employment, any other place or places he may have done credit business with, or is doing credit with at this time. These tactics will usually take him off his guard, not expecting this alertness on the part of the average professional man, and in most instances if the amount is not too large he will pay you on the spot rather than be embarrassed by answering the above questions. If you carry out this procedure you will find that 50% will pay you on the spot, and the other 50 will come closer to paying you promptly than they ever did before.

If it is to be a case of extended treatments or any operation involving a larger fee, use the same methods, but either suggest payment in advance, part payment at least, and then have your patient or his guardian sign a note

or notes to cover the balance. They are then more properly impressed with the business end of the transaction and sense their obligation to pay.

Any account in your office that is over 3 months old is a bad one if no effort has been made to pay something on it, or no explanation offered you for the reason of non-payment. If the account is in your own town, send your office girl out with instructions to get the money, a payment, or the reason why. If you do not employ an office girl, hire a collector on a commission basis. There are a great many women in your own community that would be glad of the chance to earn a little extra money putting in a couple of hours every day doing this work. A woman collector, by the way, is usually more tactful; and a surprising feature of this is that especially if she is known by the rest of the women in the community they are apt to pay promptly rather than have her return a second or third time on the same errand. Obviously the above advice applies particularly to the smaller towns, but the city physician can carry out a similar program with a hired collector or, better still, with the aid of a loyal office girl. The average office girl is so utterly sick of seeing the same names and amounts on statements month after month with no response that she will willingly enter into any program to stimulate collections. She can do worlds of good by personal contact suggestions at the time of treatment; calling up delinquent debtors on the phone; personal calls on them at their place of business or at their residence. By paying her a fair extra commission on all old accounts collected you will be surprised at the results. It's the old story, personal contact usually gets results when the postman fails. You should never feel it necessary to apologize for your actions in the collections of a just debt.

It is encouraging to note that physicians everywhere are becoming much wiser and better business men. The medical profession at large is slowly awakening to the facts:

(1) That paid accounts are the best accounts.

(2) That your patient's respect for your business integrity increases his respect for your professional ability; and incidentally, doctor, it increases your own self-respect.

(3) That the equation Dead Accounts= Dead Beats.

(4) That a bird in the hand is better than too many hand shakes.

Collateral Medical Reading

IN SEARCH OF TRUTH

The Priest Becomes the Physician and the Physician the Priest

S. T.

(During the year 1928, the Century Magazine published a series of extremely interesting articles constituting a comparative study of religions. The field was covered from Confucianism to Christianity, from Buddhism to New Thought, and an intensive study and comprehensive presentation of each sect and many denominations was clearly presented. The author's identity was hidden under the pseudonym of the "Searcher of Truth", being signed merely by the letters S. T., but every essay gave evidence that whosoever the author might be, a religious devotee or an agnostic, he had traveled extensively, read widely, thought deeply, observed calmly and without prejudice, and submitted his comparisons in the form of conclusions that were honest and fair. The scientific man could find no fault with the conclusions, if we properly interpreted them to the effect that: "All roads lead to Rome"; that man from the beginning of his existence has been impelled to worship something better than himself, and therefore, has been animated by the necessity for setting up a god and constructing a ritual that would serve as guide to a higher plane of living. Mahommed or Christ served equally well; Buddhism and Christian Science met the same need in different individuals; the tenets of Christianity are sound though the variations of denominations introduce many confusing factors. A uniform and universal religion may be desirable but is impossible or impracticable in the present state of man's mental development. All good people have the same objective, and the designating flag each carries is a matter of small consequence.

During the first 6 months of 1929, Century has published another remarkable series of monthly letters from the same writer, this time under the title, "A Modern Search of Science", consisting of short reviews of the work of eminent scientists with a view to applying exact science to the solution of some of the larger problems of life. Application of exact science to the study of life and the harmonizing of scientific discoveries in various fields of investigation is a fascinating game, and S. T. again demonstrates his unique ability to think clearly and argue logically, to maintain an unbiased attitude in distinguishing between what is proved and what is merely speculation, and to draw reasonable conclusions from our present store of knowledge.

Both series of articles are recommended to you with the Editor's assurance that you will find them interesting reading, and he believes you will find it worth while to look up those back numbers of Century Magazine. One particular article is of such real significance to the practicing physician of today that we have asked permission to quote from it extensively, italicizing portions which the Editor deems deserving of special emphasis.)

"Probably no subject—unless it be religion—is provocative of such violent and contradictory opinion today, as the subject of psycho-

analysis. The young liberals swear by it. The older conservatives shudder at it. There are ministers who hold it to be as diabolic as evolution, and all its workings pernicious and demoralizing. Other ministers, such as Dr. Worcester and Dr. Fosdick, find the new psychology so valuable in the daily work of their pastoral confessionals, that they go to a college or a clinic and patiently toil through a stiff 2 or 3 year course, for the knowledge they may gain therefrom. Perhaps those who feel most passionately are the erstwhile patients of psycho-analysts—people who have either been cured, and their "whole lives made over"; or who tell you indignantly of the "absolute waste" of hundreds of dollars and much good time, in a lot of messy stuff they wish they'd never heard of, and are now heartily trying to forget.

In the midst of all this contradiction and confusion, immensely valuable is the sane and well-balanced report of such a man as Dr. William Brown—bringing his seasoned and comprehensive point of view developed out of years as a practicing physician, in addition to his months of intensive and illuminating experience with shell-shocked soldiers at the front. He has become internationally recognized as one of the very finest of psychotherapists. You will notice that Dr. Brown, like a number of other physicians, prefers to call his specialty psychotherapy instead of psycho-analysis, since this word has come to have a restricted connotation in consequence of the special theory of Freud.

While giving an excellent résumé of that theory, and expressing appreciation of Freud's method—which virtually every modern psychotherapist employs to some extent—Dr. Brown makes it clear that he does not by any means share Freud's basic conviction: that all psychoneuroses or emotional and mental disturbances, can invariably be traced to the sex motive. Dr. Brown maintains that while many cases can certainly be traced to sex disturbance (because that set of instincts is so delicate, and so easily disturbed), other cases are found to spring from the instincts of self-preservation, self-assertion, gregariousness, and so forth. And—this, I think, is one of the most valuable points in his paper, and one most profoundly to be appreciated by parents and teachers—he shows that sex complexes and sex perversions where they do exist, arise not nearly so often from original abnormality as from chance occurrences.

Every one who has studied case histories, in a clinic or from medical reports, must have been impressed with the truth of this statement—the amazing number of cases of abnormality that began with some thoughtless or deliberately perverse move by an older person toward a young one. And who of us cannot go back into his own early days and drag forth some dark impression, some unhappy adventure—that hung over him for years, and that even now he finds difficult to shake off?

The plasticity of life in its early years—and of the substratum of disease in its early stages: this seems to me the first point we are impressed with in psychotherapy. Most illnesses in their early stages are curable, says Dr. Brown—"Their physical substratum is plastic in nature . . . . Much of the physical medicine of the future will be concerned with what is called prophylaxis—the preventing of illness, detecting illness in very early stages, and checking its further progress."

I was talking last week to another great psychologist—Dr. Morton Prince. He said: "It has been proved by statistics that 50 to 70% of all disease is functional; hence in two-thirds of all disease it is not drugs and physical therapy, but mental methods, psychotherapy, that is needed, and that alone can effect a cure."

Dr. L. E. Emerson, practicing psychologist of the Massachusetts General Hospital, also told me: "It is surprising the strange varieties of disease that may be traced to mental causes and that yield to mental treatment. All sorts of functional disorders I have traced to personal conflict—in the home, or the business and social life of the sufferer. They are cured by bringing up into consciousness those issues that are the real cause of the disturbance, by doing away with the unnatural repression, bring the patient into normal relations with himself and with society."

And that tremendous statement of Dr. Brown—"It is possible that the most effective treatment of illness in any part of the body in early stages is similar to treatment of so-called functional nervous diseases in their very early stages." Which is to say that virtually 50 to 70% of all disease proceeds from mental causes and can be cured by mental methods. And as germs and accidents come from conditions which can usually be avoided by human intervention we shall probably be saying, in another 20 years, that all diseases come from causes humanly preventable. A long cry from the day when we were resigned to such afflictions as "the will of God!" And a situation perhaps not less but more difficult for us—since it brings responsibility down to

our own door, instead of removing it conveniently to the gates of a far-off Creator.

Again and again it is brought home to us —that *we* are the creators of our present conditions: disease, nervous disturbances, the havoc of so-called natural calamities. Back and back we come to it—through Lord Haldane's relativity, Sir J. C. Bose's experiments, Dr. Thomson's natural history, Dr. Benedict's science of custom, and now Dr. Brown's latest medical science and psychotherapy. The creative power of man over his own conditions and destiny: the plastic mind of the child in the nurseries; the terribly plastic, terribly impressionable mind of each human being we come in contact with—influence—and change. We are only just beginning to appreciate the power that we wield over these plastic minds and bodies; and that they are actually formed and transformed by the ideas repeatedly impressed upon them.

We know this now not only from the "affirmations" and vague generalizations of metaphysical healers, but from the scientifically verified statements of conservative medical men, based on years of careful experiment.

It has been lack of capacity on the part of the average analyst to go beyond the technical rules of his method, and the intellectual purlieus of his limited theory, that has caused almost as much damage as help through psychoanalysis. After about as many failures as cures, the analysts themselves are waking to the fact that technical psychology, and medical proficiency, are not enough to make a successful psychotherapist.

"I am more and more convinced," says Charles Baudouin, head of the Psychological Institute at Geneva, "that certain purely moral qualities—qualities of honesty, of justice, of mental tolerance and spiritual insight—are truly principles of method, no less indispensable to the knowledge of a science than the logical rules of Descartes." Psychotherapy has too often been attempted by men quite without this essential spiritual equipment—men of limited perspective, thin and didactic intellect, arrogant and supercilious personality. You can never have a clear mind—therefore profound and true understanding of any science—where there is egotism. In psychology, in science, in religion, we are driven back ultimately to the same final necessity—character. The understanding and wisdom that comes from broad experience of life, and habitual reactions to life of the highest and finest sort.

Thus the physicians are coming more and more to appreciate and reach out toward spiritual quality; and the spiritual healers are at last getting a trustworthy, accurate theory and method for the science of healing that they have been more or less erratically and unsystematically practicing. Intellect is serving spirit, and spirit is better grounded and balanced because of intellectual and scientific integrity.

All of these different contributions have been needed for the complete science of mind and body. Each of these healing groups has made its special gift to the science of psychology now evolving. Psycho-analysis furnished the technic for finding the cause of the abnormal condition. The Coué school emphasized the tremendous power and receptivity of the subconscious mind—the transformations that can be wrought through its response to suggestion. New Thought and Christian Science have given strong, positive principles, constructive convictions, on which to build a new attitude, hence new conditions. No cure can be complete without all these elements judiciously combined and supplementing one another.

The psychotherapists and physicians have the advantage of knowing what they're doing —of making no claims or assumptions that they cannot substantiate. Four years' medical course is itself a discipline and training unobtainable by the healer who jumps into the office of a "practitioner", at the end of a course of 12 lessons. The metaphysicians on the other hand, have the advantage of their strong spiritual consciousness, of living with the spiritual side of life constantly and constructively uppermost.

It is possible (though still rare) to have both the scientific knowledge and the spiritual consciousness. Both must be present in the truly dependable healer. And when healing is understood in its true significance—as we have seen it in this study, a complex science involving cure for both mind and body—it will be seen that the one is as indispensable as the other. We have just now on foot an interesting movement which promises finally to combine the two: the proposed association of the Federated Churches and the Academy of Medicine in New York (following on the decision of the churches to develop their healing work).

And there has been for years the Emanuel Movement by Dr. Worcester in Boston, the only spiritual healing movement approved by the Archbishop of Canterbury out of the hundreds he investigated. During the 20 years of

their work, the Emanuel people have never had a death, or a suicide of any patient under their care—because they have worked always in consultation with the medical profession. Each side gave the special knowledge and help it was qualified to give. Neither overreached itself.

And what was the result? Each learned from the other, respected the other, gradually assimilated and incorporated the good things of the other—until imperceptibly the priest becomes the physician, and the physician the priest. And in the end, I believe, the two vocations will be merged, as they were in the old days; only with the new light of science, in place of the old superstition. And the day will eventually come for all mankind when we shall be physically clean because we are spiritually whole.

In Lighter Vein

They're Always Dangerous

First Cannibal—"The chief has hay-fever."

Second Cannibal—"Serves him right. I told him not to eat that grass widow."—The Pathfinder.

Anti-Necker

A bee expert is out with the advice: "Don't coddle your bees." It's nice to know that we've been coöperating all these years by not even getting within coddling distance.—New York Evening Post.

Long Felt Want

Young Miss—"And next week I'm sailing for Paris to get my clothes."

Grandmother—"Yes, yes. I wondered where you'd left them."—Schenectady Union-Star.

Nor Sitting in His Lap

The dictaphone is a valuable asset in any office. It never takes a man's mind off his work by crossing its knees.—Life.

Wrong Number!

A Negro cook answered the telephone the other morning, and a cheerful voice inquired: "What number is this?"

The cook, in no mood for trifling questions, said with some asperity: "You-all ought to know. You done called it."—Charleston News and Courier.

All Aboard the Lullaby Limited

Doctor—"I will give you a local anesthetic if you think it necessary."

Railroad Man—"Well, Doc, if it's going to hurt I reckon you had better cut out the local and run me through on a sleeper."—Pennsylvania Farmer.

Observations from the Lighthouse

BACTERIOPHAGE

Ever since we read "Arrowsmith" we have awaited news of the scientific advance of "bacteriophage." Now, an editorial in the Journal of the Iowa State Medical Society (19:198, April, 1929) gives us up-to-date information:

When d'Herelle first published his report of the discovery of a bacteriolytic substance, which he called bacteriophage, little interest was aroused even in the ranks of laboratory investigators. As is frequently the case with real discoveries, the notion seemed fantastic and the substance itself unreal. Scientists were not prepared to accept the existence of a substance whose presence could only be proved by observing its action. In its action it did not follow the established laws known to govern animal or vegetable life. It was not a ferment or enzyme. It was inconceivable that this substance belonged to the category of non-living matter, since under conditions suitable for bacterial growth it increased in amount and activity. It was subject to destruction by heat and underwent changes in specificity depending upon its environment. Could such a substance really exist? Biologic science had prepared no place for such a substance, so d'Herelle was looked upon as a dreamer of unreal dreams. Time, the tester of all theory, has proved, however, that d'Herelle's bacteriophage is a reality, and its discovery ranks among the outstanding achievements of this experimental age in medicine.

Biologists have for some time past recognized the existence of bacteriophage, but even in this recognition have looked upon it as a laboratory novelty, a mysterious and useless plaything, suitable only for "laboratory demonstrations". Scientists, while accepting the reality of the bacteriophage phenomenon, have placed little credence in the clinical possibilities of this agency in the treatment of disease. This attitude has no doubt been partly due to the intangible nature of the remedy and partly due to the fact that the earlier attempts to utilize bacteriophage in treatment resulted in numerous failures. Within the past 5 years considerable evidence has been accumulating to the effect that bacteriophage may be highly useful in the treatment of certain bacterial diseases. Conspicuous among the more recent favorable reports are those presented by Rice and Harvey of the department of bacteriology of the Indiana University School of Medicine. Their first report (Jour. Indiana Med. Soc., March, 1928), discussed in a preliminary way their experience with 20 patients. A subsequent report (Jour. Lab. & Clin. Med., Oct., 1928), covered some 50 cases, while their most recent contribution (Jour. Indiana Med. Soc., Dec., 1928), reviews their experience with 150 cases. These reports are particularly outstanding, since their experience includes a considerable variety of conditions, a modified technic of application, and an almost uniformly satisfactory result obtained. Among the conditions which they treated with their bacteriophages were boils, carbuncles, abscesses, ulcers, acne, urinary infections, impetigo, and osteomyelitis. Almost without exception their results were good—much better, in fact, than could have been expected from any other means now employed in the treatment of like conditions. It is interesting to note further that in a majority of the cases treated, the bacteriophage was applied in the form of a wet dressing or instilled directly into the wound. This me-

thod is unusual, but apparently highly effective.

Other investigators for the most part have used the bacteriophage for subcutaneous injections, basing such use upon the similarity of a bacteriophage or a bacteriophage-lysed culture to a vaccine. These investigators further report that whenever possible the bacteriophage was prepared autogenously, but they further conclude from their experience that "stock" preparations, particularly for the staphylococci, are about as useful as those autogenously prepared. A striking phase of the action of bacteriophage apparent from their summary, is that the pain which accompanies these suppurative conditions is relieved with surprising promptness and completeness following the institution of bacteriophage therapy. This observation is confirmed by the reports of other investigators. No untoward results were noted in the entire series reported.

If bacteriophage is to accomplish the tremendous and far-reaching good which such preliminary reports suggest, it then behooves every agency conducted for public welfare to further, so far as possible, the accumulation of accurate data reflecting the true worth of the remedy. It is noteworthy that the Michigan Department of Health. (Jour. Mich. Med. Soc., Feby., 1928), under the direction of Dr. Guy L. Kiefer, is assisting in such a program in a very positive way. Feeling as they do that bacteriophage promises to be of great value in the treatment of bacterial disease, they are offering to furnish physicians of their state bacteriophage for clinical use free of charge. They stipulate, however, (1) that the physicians so favored must furnish the department laboratory with bacterial cultures for positive identification, taken from the lesions of the disease treated, and (2) that case records be furnished for analysis covering the course of every case treated. Protected by these control measures, they will be able not only to advance therapeutically the legitimate use of this agent, but prevent in a large measure its ignorant misuse and failures which necessarily would throw discredit upon the procedure. It would seem highly fitting that other states, through their boards of health, should follow the commendable lead of Michigan in furthering this study through the department laboratories. Such a unified effort would, in a very short time, provide sufficient well-controlled and accurately accumulated data upon which an accurate estimate of the usefulness and shortcomings of this very new therapeutic agent might be based.

Current Events

HOUSE OF DELEGATES AT THE PORTLAND SESSION OF THE AMERICAN MEDICAL ASSOCIATION, JULY 8-12, 1929

The Eightieth Annual Session of the American Medical Association was held in Portland, Oregon, July 8 to 12, 1929.

The House of Delegates convened at 10 a. m., July 8, and was called to order by the Speaker, Dr. F. C. Warnshuis, of Michigan.

The minutes of the Seventy-Ninth Annual Session were approved as printed. The annual addresses of the Speaker, the President and the President-Elect were heard by the House and referred to the Reference Committee on Reports of Officers. These addresses appeared in The Journal of the American Medical Association for July 20, 1929. Reports of the Board of Trustees, of the Secretary, of councils and of other standing committees were submitted to the House and referred to reference committees.

That part of the report of the Board of Trustees dealing with the need for a new building to house the activities of the Association was referred to a special committee appointed by the Speaker on authorization of the House.

History of the American Medical Association

Dr. William Allen Pussey, delegate from Illinois, submitted a resolution providing for the appointment of a committee by the Board of Trustees to direct the preparation and publication of a comprehensive history of the Association. This resolution, having been referred to the Board of Trustees, was recommended for adoption and the recommendation was approved by the House of Delegates.

Practice by Corporations and Other Groups and the Relationship of Physicians Thereto

Dr. William Allen Pusey, delegate from Illinois, presented a resolution providing that the Judicial Council of the Association be asked to present to the House of Delegates at the annual meeting in 1930 a comprehensive statement for the guidance of the American Medical Association concerning the practice of medicine by corporations, by clinics, by philanthropic organizations, by industrial organizations, by demonstrations and by similar organizations, and concerning the relationship of physicians thereto.

This resolution was considered by the House of Delegates in executive session, and was adopted.

Home for Indigent Physicians

Dr. J. Norman Henry, of Pennsylvania, submitted the report of a special committee appointed to study the need for establishment of a home for needy physicians. This report was referred to the Board of Trustees and was recommended for adoption. After discussion by several delegates, the recommendations of the Board of Trustees were approved, and the report of the committee adopted. The report of the committee advised against the establishment by the Association of a home or homes for indigent physicians and expressed the opinion that "it is not, nor should it be, a function of the American Medical Association *at this time* to undertake the care of indigent physicians in any way".

Lists of Physicians in Classified Telephone Directories

Dr. G. Henry Mundt, delegate from Illinois, submitted a resolution providing that when publishers of classified telephone directories impose a charge for listing the names of ethical physicians in such directories, component county medical societies of the American Medical Association be advised to discontinue such listings in classified directories. The Reference Committee on Legislation and Public Relations, to which this resolution was referred, recommended adoption of the resolution, and the recommendation of the Reference Committee was approved by the House of Delegates.

Endorsement of the Methods of the Department of Commerce in the Selection of Medical Examiners

Dr. Albert Soiland, delegate from California, submitted a resolution providing that the American Medical Association should endorse "the medical work of the Department of Commerce, its methods

of physical examination and its method of selection of medical examiners, and urges that the same high standards be continued and offers the support of the American Medical Association in furthering the specialty of aviation medicine'. This resolution, referred to the Reference Committee on Hygiene and Public Health, was favorably reported and was adopted by the House of Delegates.

Dangers of Illuminating Gases and Gases Used in Electrical Refrigeration

Dr. J. W. Van Derslice, delegate from Illinois, submitted a resolution providing for the appointment by the Board of Trustees of a committee to study and report on the menaces to health and to life from carbon monoxide gas as a constituent of illuminating gas and as a by-product of the combustion of gasoline in automobiles; on the dangers of gases used in the electric refrigeration, and on steps necessary to be taken for protection of the public. This resolution, referred to the Reference Committee on Hygiene and Public Health, was adopted by the House.

Teaching of Obstetrics

Dr. James R. Bloss, delegate from West Virginia, presented a resolution providing that the Council on Medical Education and Hospitals be asked to investigate the present teaching of obstetrics in the United States and to seek readjustment of the curriculum so that hours allotted to teaching of obstetrics be equal to those allotted to the teaching of surgery. The Reference Committee on Medical Education recommended amendment of the resolution as presented by Dr. Bloss so that it would provide that the House of Delegates request the Council on Medical Education and Hospitals to investigate the present teaching of obstetrics "and make such recommendations for increasing the clinical teaching hours of obstetrics as the result of its investigations may warrant". On motion of Dr. Mundt of Illinois, seconded by Dr. Mongan of Massachusetts, the resolution was re-referred to the Reference Committee on Medical Education. At a later session this Reference Committee recommended adoption of the following resolution: Whereas, The time allotted for the teaching of obstetrics in the curriculums of the several medical schools has been cut down and is inadequate to drill the student thoroughly in this important major, be it

Resolved, That the House of Delegates request the Council on Medical Education to investigate the present teaching of obstetrics in this country and make such recommendations for increasing clinical teaching hours of obstetrics as the results of its investigations may warrant.

The resolution as amended by the Reference Committee was adopted by the House of Delegates.

Amendments to By-Laws

Dr. E. C. Thrash, delegate from Georgia, proposed the following amendments to the By-Laws: Amend Chapter XIX of the By-Laws by substituting the words "two-thirds" for the words "three-fourths" so as to permit amendment of the By-Laws of the Association by a two-thirds vote of the House of Delegates. On recommendation of the Reference Committee on Amendments to the Constitution and By-Laws, the proposed amendment was adopted.

Advertising Hospitals

Dr. Burt R. Shurly, delegate from the Section on Laryngology, Otology and Rhinology, presented a resolution providing that inasmuch as some hospitals, municipal and otherwise, have advertised in the daily press "and have given to the public stories of their special excellence and efficiency as compared with other hospitals", such advertisements be collected by the Council on Medical Education and Hospitals and that the "question of hospital advertising be given due consideration and reported to the House of Delegates at the next annual meeting, and the rating of hospitals be affected according to the unethical advertising published".

The Reference Committee on Medical Education, to which this resolution was referred, recommended amendment of the resolution as introduced by Dr. Shurly so that it would read as follows:

RESOLVED, That any physician observing such advertisements be requested to send them to the Council on Medical Education and Hospitals for its information and use in the rating of hospitals.

The resolution as amended was adopted.

Honorariums To Section Secretaries

Dr. Burt R. Shurly, delegate from the Section on Laryngology, Otology and Rhinology, submitted a resolution providing that the sum of $100 shall be paid to each section secretary in addition to the honorarium now paid "to cover the actual expenses involved in the preparation of the program and presentation of the same at the annual meeting". The Board of Trustees, to which this resolution was referred, reported that no statement had come to the attention of the Board indicating that the honorarium now paid section secretaries is insufficient, and that the Board of Trustees stands ready to make necessary and proper adjustments. The report of the Board of Trustees was approved by the House of Delegates.

Supplement to the Journal

Dr. Burt R. Shurly, delegate from the Section on Laryngology, Otology and Rhinology, submitted a resolution providing that the Board of Trustees be authorized to prepare a Supplement to The Journal, in which papers read before sections and not accepted for regular publication in The Journal should appear. This resolution was reported unfavorably by the Board of Trustees, to whom it had been referred, and the House of Delegates adopted the recommendation of the Board.

Digest on Physical Therapy

Dr. Joseph F. Smith, delegate from Wisconsin, presented a resolution providing that the Board of Trustees be requested to have prepared by the Council on Physical Therapy a digest setting forth the basic principles underlying the employment of physical agents and their mode of action on living tissue, and to publish this digest in a form which would be available to physicians. The Board of Trustees reported to the effect that a handbook of the kind provided for in the resolution is already in the course of preparation.

Expenses of Delegates

Dr. Frank Smithies, delegate from the Section on Gastro-Enterology and Proctology, submitted a resolution providing that the Board of Trustees be directed to defray expenditures for transportation, housing and maintenance during the attendance on each annual session. This resolution was referred to the Board of Trustees, which recommended that the resolution be not adopted. This recommendation was approved by the House of Delegates.

Needs of Small Hospitals

Dr. T. O. Freeman, delegate from Illinois, submitted resolutions providing that the Council on Medical Education and Hospitals be ready to make

a survey of the needs of smaller hospitals, to render all possible assistance to such institutions desirous of improving their system of records and their services to the public, and to offer its assistance to state registration departments to the end that such departments may secure such aid as they desire in connection with their classification of accredited hospitals. The Reference Committee on Medical Education, to which this resolution was referred, reported to the House of Delegates that in its opinion the investigation begun several years ago and now being carried on by the Council on Medical Education and Hospitals would fulfill all the objects of the resolution, and that the Reference Committee believed that the Council stands ready to give all possible assistance to small hospitals in solving their problems. The Reference Committee recommended that the resolution be not adopted, and this recommendation was approved by the House of Delegates.

Direction of Red Cross Nurses By Cultists

Dr. J. C. Litzenberg, delegate from Minnesota, submitted a resolution adopted by the Minnesota State Medical Association, disapproving the policy of the American Red Cross in officially authorizing Red Cross nurses to nurse patients under the care of cultists. The Reference Committee on Legislation and Public Relations recommended that the American Medical Association disapprove any change in policy by the American Red Cross whereby the nurses of that organization would be available for service to patients under the care of cultists, and that the Secretary of the Association communicate with the proper officials of the American Red Cross and advise that organization of the attitude of the House of Delegates. The recommendations of the Reference Committee were adopted.

New Building

The special committee, to which that part of the report of the Board of Trustees dealing with the need for a new building for housing the activities of the Association was referred, expressed its conviction that it is desirable for the Association to have a building "that would be visible evidence of the dignity, importance and power of the Association," and recommended that it should be left to the Board of Trustees to perfect plans for providing the building.

This committee also expressed the opinion that the subscription price of The Journal is now relatively greatly below the price of other journals that approximate it in extent and quality, and suggested that the Board of Trustees should consider the question of increasing the subscription price.

A third recommendation of the committee was to the effect that it would be appropriate for the Board of Trustees, in a building program, to solicit memorial contributions, both large and small, from members of the Association. The committee expressed its conviction that as the Association shows increased evidence of strength and permanence it will gradually become the recipient of an increasing number of memorial contributions.

The report of the special committee was adopted by the House of Delegates.

Later in the proceedings, Dr. William Allen Pusey, delegate from Illinois, introduced a proposed amendment to the By-Laws providing that the subscription price of The Journal shall not exceed $8. This proposed amendment was adopted by the House, and the Board of Trustees is thereby authorized to increase the subscription price of The Journal to a sum not in excess of $8 a year.

Periods of Practical Experience for Medical Students

Dr. E. J. Goodwin, delegate from Missouri, presented a resolution that had been adopted by the Missouri State Medical Association providing that medical schools be encouraged to arrange for periods of practical experience for students with practitioners of high standing, preferably in rural communities, and that the Council on Medical Education and Hospitals be instructed to consider the plan proposed by the Missouri State Medical Association and, if the plan is found to be feasible and beneficial, the Council be urged to encourge medical schools to "inaugurate suitable methods for providing these vacation periods of practical experience for their students". The Reference Committee on Medical Education reported favorably on this resolution, and it was adopted by the House of Delegates.

Safety of Milk for Human Consumption

Dr. A. T. McCormack, delegate from Kentucky, submitted a resolution providing that "it is the sense of the American Medical Association that the determination of measures necessary for insuring the safety of milk for human consumption is a duty and function of the medical profession through the duly constituted public health officials of this country". The Reference Committee on Hygiene and Public Health recommended adoption of the resolution and this recommendation was approved by the House of Delegates.

Committee on Military Affairs and National Defense

Dr. H. C. Mallory, delegate from the U. S. Army, presented a resolution providing for appointment by the Board of Trustees of a special committee to be known as the Committee on Military Affairs and National Defense, to which shall be referred matters pertaining to national defense and military preparedness. The adoption of this resolution was recommended by the Board of Trustees and this recommendation was approved by the House of Delegates.

National Defense Act of 1920

Dr. Holman Taylor, delegate from Texas, introduced a resolution providing that the American Medical Association, through its House of Delegates, go on record as heartily approving the National Defense Act of 1920. The Reference Committee on Legislation and Public Relations reported the resolution favorably, and it was adopted.

Increased Tariff on Surgical Instruments

Dr. Albert Soiland, delegate from California, submitted a resolution providing that the House of Delegates record its opposition to the passage of a bill providing for increased tariff on surgical instruments, x-ray equipment, vacuum tubes, valve tubes and scientific glass-ware. The Board of Trustees recommended adoption of the resolution, and the House of Delegates approved this recommendation.

Standards of Physical Fitness of Automotive Operators

Dr. H. C. Macatee, delegate from the District of Columbia, presented a resolution setting out that relatively few accidents occur because of defects of sight and hearing and providing that the House of Delegates "consider the advisability of amending the present standards of physical fitness of automotive operators, adopted by this Association, by the adoption of standards of mental and moral fitness to be recommended for adoption by the several states as a condition for issuing licenses

to operate motor vehicles, and that this resolution be referred to a special committee for consideration and report at the next annual session". The Reference Committee on Hygiene and Public Health recommended adoption of the resolution. On motion of Dr. G. Henry Mundt, delegate from Illinois, the resolution was amended by deleting a statement in the preamble to the effect that relatively few accidents occur because of defects of sight and hearing. The resolution as amended was adopted.

Medical Expert Opinion

Dr. Tom B. Throckmorton, delegate from the Section on Nervous and Mental Diseases, submitted the following resolutions, which had been approved by that Section:

Whereas, The House of Delegates of the American Medical Association has previously expressed its dissatisfaction with the present status of medical expert opinion evidence and has expressed its approval of the efforts of the American Bar Association and of the various bar and medical societies to correct by remedial legislation and by changes in court procedure the present undesirable features of the introduction of such evidence, and

Whereas, The American Psychiatric Association and the National Crime Commission are devoting much study to the subject of such evidence, particularly as relates to psychiatric matters in criminal cases, with a view to improving procedure, and

Whereas, The Criminal Law Section of the American Bar Association has appointed a committee to collaborate with a committee of the American Psychiatric Association in formulating plans for bringing about a betterment of the present undesirable situation, and

Whereas, Such efforts are of vital interest and importance to the entire medical profession, be it therefore

RESOLVED, That the House of Delegates of the American Medical Association express its continued interest in the correction of the abuse of medical expert opinion evidence, and that it offer to the American Bar Association, the American Psychiatric Association, and the National Crime Commission, the various state and county medical and bar associations, and such other reputable organizations as are actively pursuing efforts directed toward such correction, the assistance and coöperation of the American Medical Association in promoting the passage of appropriate legislation and in bringing about suitable changes in court procedure with reference to such evidence, and be it further

RESOLVED, That the House of Delegates approves the principle of securing in the case of all capital charges and in the case of as many other criminal charges as the psychiatric facilities of the state will permit an impartial and routine mental examination of the defendant in advance of the trial as a means of obviating the contentious introduction of partisan testimony, and that it approves further the principle of removing as far as possible the quesiton of sanity from the trial itself, reserving the employment of psychiatric data for a post-trial inquiry to determine what treatment is appropriate to the convicted person, and be it further

RESOLVED, That a copy of this resolution be forwarded to the American Bar Association, the American Psychiatric Association, and the National Crime Commission.

On motion of Dr. Throckmorton, seconded by Dr. A. T. McCormack, delegate from Kentucky, and after discussion by various members of the House, these resolutions were adopted by the House of Delegates.

Resolution From Section on Dermatology and Syphilology

Dr. F. W. Cregor, delegate from the Section on Dermatology and Syphilology, submitted resolutions providing that treatment for hypertrichosis by the tricho system and by allied systems employing radiation be condemned as highly dangerous to the patient, and "that all cases presenting the effects of this type of treatment and seen by members of the medical profession be reported to the Bureau of Investigation of the American Medical Association". The resolutions were adopted.

Amendment to the Principles of Medical Ethics

The Judicial Council, in its report to the House of Delegates, recommended that Section 3, Article VI, Chapter II of the Principles of Medical Ethics be amended by substituting the following:

Commissions

Sec. 3.—When a patient is referred by one physician to another for consultation or for treatment, whether the physician in charge accompanies the patient or not, it is unethical to give or receive a commission by whatever term it may be called or under any guise or pretext whatsoever.

This recommendation of the Judicial Council was adopted by the House of Delegates, and the Principles of Medical Ethics were so amended.

Message from President of Woman's Auxiliary

Dr. J. H. J. Upham, member of the Board of Trustees, presented a report from the Woman's Auxiliary, submited by its President, Mrs. Allen H. Bunce, of Atlanta, Georgia, and this message was accepted by the House and made a part of its records.

Election of Officers

The following officers were elected:

President-Elect, William Gerry Morgan, Washington, D. C.

Vice-President, Ernst A. Sommer, Portland, Oregon.

Secretary, Olin West, Chicago.

Treasurer, Austin A. Hayden, Chicago.

Speaker of the House of Delegates, F. C. Warnshuis, Grand Rapids, Michigan.

Vice-Speaker of the House of Delegates, Albert E. Bulson, Fort Wayne, Indiana.

Member of the Board of Trustees, D. Chester Brown, Danbury, Connecticut, reëlected.

Member of the Board of Trustees, Allen H. Bunce, Atlanta, Georgia, to succeed E. H. Cary, Dallas, Texas.

The President, Dr. M. L. Harris, made the following nominations for standing committees:

Judicial Council, James B. Herrick, Chicago.

Council on Medical Education and Hospitals, M. W. Ireland, Surgeon General, U. S. Army; James S. McLester, Birmingham, Alabama.

Council on Scientific Assembly, Lewis H. McKinnie, Colorado Springs, Colorado.

These nominations by the President were confirmed by the House of Delegates.

Honorary Fellow

Dr. Josef Jadassohn of Breslau, Germany, was nominated for Honorary Fellowship by the Section on Dermatology and Syphilology, and this nomination was approved by the Council on Scientific Assembly. Dr. Jadassohn was elected to Honorary Fellowship by the House of Delegates.

Place of 1930 Annual Session

Detroit, Michigan, was selected as the place for holding the next annual session of the American Medical Association, in 1930.

ANNUAL MEETING PENNSYLVANIA STATE MEDICAL SOCIETY

Reported by W. Blair Stewart, M.D., Atlantic City

It was not only a privilege but a great pleasure for me to attend, as Delegate from the Medical Society of New Jersey, the Seventy-Ninth Annual Session of the Medical Society of Pennsylvania, held at Erie, Penna., October 1-3, 1929. The medical profession of Erie, true to custom, made an ideal host and provided not only every convenience for the meeting but was very lavish in entertainment for the ladies and fellows. An outstanding feature of the meeting was the loyalty and enthusiasm of the Woman's Auxiliary that met simultaneously, with headquarters in the palatial Y. W. C. A.

The Technical Exhibit of over 50 reputable firms was a real marvel of excellence and a credit to those whose untiring labors brought together so many accredited displays. The scientific exhibit on the heart, radiology, tuberculosis, miscroscopic and mounted specimens and a continuous motion picture program combined a real postgraduate course for the many who availed themselves of this opportunity for study and review.

The Scientific Program was well arranged and presented before 6 separate sections. The various symposiums were well developed and were of such varied types and value that one cannot review them in a short report. Many research papers on varied subjects of scientific interest were presented by members and invited guests.

The address of the President, Dr. W. T. Sharpless, of West Chester, Penna., received great acclaim and contained some pertinent references. He gave great credit to the Woman's Auxiliary for its assistance during the past year in promoting health propaganda, assisting in legislative measures and giving moral support to the profession. He spoke of the Pennsylvania State Board of Medical Licensure and its work, severely criticizing some of its rulings and exactions as autocratic, particularly speaking of the unfair exactions from many hospitals that are of highest standing but not able to fully qualify to many unnecessary requirements, thus causing their exclusion. It is not politic at this time to urge a Basic Science Law in Pennsylvania on account of the possible unfavorable influence of the cults. He said there was a great tendency to drift from preventive to so-called curative medicine as influenced and directed by lay organizations. Expert medical testimony, as practiced in Pennsylvania and many other states, was criticized and condemned and must be changed. He referred to the new law on this subject adopted by Massachusetts as being along ideal lines that would prevent the unfortunate discrediting of our profession.

Dr. Sharpless urged the profession not to neglect recreation for self. His ideal is to accumulate a library of good books, giving special attention to medical history. After all, the Oath of Hypocrates should be reread and made the ideal of medical practice.

The House of Delegates chose Dr. Ross V. Patterson, of Philadelphia, as President-Elect, and Johnstown was chosen as the next place of meeting, in 1930.

THE ASSOCIATION OF AMERICAN SCHOOL PHYSICIANS

(Abstract of a paper presented by Julius Levy, M.D., State Department of Health, Trenton, N. J.)

At the meeting of this association last year, Dr. Burke, of Toronto, outlined what he considered the model plan for school health work, definitely and emphatically taking the position that school health work is the proper function of the health department, but inasmuch as his experience was drawn from a large city, it might be held that his plan cannot be as well adapted to rural communities. If the experience in New Jersey will be of any value, it is just because it has made available to rural communities a simple, complete method of protecting the health of children.

The purpose of school health work originally was to control contagious diseases; later, to remove defects and deformiites; finally, to stimulate a greater interest in right ways of living. Actually doctors and school nurses have been restricted to discovering and, to a limited degree, removing defects. A study of the diseases, defects, and deformities found in school children very quickly indicates that prevention can be accomplished only in a small way by any work in school or with school children.

Let us consider a few of the conditions frequently found among school children.

Defective Teeth. Defects of the teeth are found in about 70% of school children. As long as the view that clean teeth do not decay was accepted, there was some justification for directing a great deal of attention to care of the teeth of school children; but our newer knowledge of nutrition and development, especially the work of Mellanby, has clearly demonstrated that carious teeth are more the result of defective dental structure determined by the hygiene and feeding of the expectant mother and young infant. An effective program, therefore, for the prevention of carious teeth must be directed not to the school child with carious teeth but to the expectant mother and young infant, or at least to the filling of small fissures and pits in deciduous or secondary teeth. It is similarly being recognized that the administration of cod-liver oil and exposure to ultraviolet rays, if made available to the expectant mother during the last 6 months of pregnancy or to the infant during the first 5 to 6 months of life, will either prevent or cure those disturbances in calcium metabolism which lead to defective tooth structure and bony malformation and later, probably, to malocclusion and deformities of the jaws.

Malnutrition. Malnutrition has occupied an increasingly important place in school health programs, especially when this work has been directed by educational departments. Very expensive and concentrated programs for nutrition classes have undoubtedly increased the weight and general nutrition of a percentage of the children receiving this attention. It is very clear, however, to anyone familiar with the growth, development, and nutrition of the whole child that, in the first place, malnutrition manifests itself long before the child comes to school; and secondly, that the ill results of malnutrition, such as anemia, atrophied muscles, deformities of the bones, and defective structure of the teeth, can more easily be prevented than corrected, and that the only effective time for influencing normal growth, development, and nutrition is in the early infancy period. We know that many catarrhal affections of early school life, much nervous instability, and a great

deal of the physical inferiority of a large proportion of the school population is associated with and the result of improper feeding or poor hygiene of early infancy.

Rickets. Probably the most important factor in anemia, weak muscles, poor bone and tooth formation is rickets. While we see few cases of clear-cut scurvy, there are many children not undergoing normal development on account of an inadequate supply of certain vitamins, like Vitamin B, or an inadequate supply of minerals, particularly calcium. Other conditions, such as defective hearing and vision, hypertrophied tonsils, have their inception long before the children come to school; and even if many of these conditions be remedied, the ill effects persist.

Now can you appreciate that with this understanding of child growth and development we could not find much comfort in the establishment of nurses who spend their time looking after school children only. We started out with the idea that there should be established, especially in rural communities, a child hygiene program which would combine the age periods in which preventive work is most effective with the work for school children, and have designated this as the continuous child hygiene program. Its essential feature is that a nurse shall be established in each community to join together instruction to the expectant mother, supervision of the new-born and preschool children, and school work. By experience we have learned that each nurse can look after approximately 1000 school children and 100 new births together with the expectant mother and preschool children. Where a single community does not present this number, we have combined as many communities as it requires fully to occupy the time of the nurse; where a community presents a larger number, more than one nurse is needed. The State Department makes the initial demonstration. After carrying the work for a year, the local community is required to assume the salary of that nurse, but the State Department continues supervision through a staff of district supervisors. In many communities it is arranged that the local boards of health and education join in paying the nurse's salary. Where a local board of health does not exist, or does not have the money, the requirements are met by a township committee. Medical inspectors are paid by the local boards of education, the nurse assisting them in the examinations and carrying on the usual classroom inspection and home follow-up.

There are many reasons for adopting the continuous child hygiene nurse rather than the separate school nurse system. First and foremost it gives a guarantee that the preventive health work begins at the beginning, that is, in the prenatal period. While it is proposed by some to have a preschool and infant nurse in a community, in addition to the school nurse, we know by experience that rural communities cannot afford 2 such nurses and, furthermore, that there is no justification, either in character of the work or in the training required, for having 2 persons visiting the same homes on similar errands. Secondly, employment of the child hygiene nurse places the health work under supervision of a health department which, by training, interest, and government enactment, is responsible for the health of the entire community. The child hygiene nurse in this way is a quickly available instrument for any other special health work which may be required in an emergency; diphtheria prevention through the administration of toxin-antitoxin is a case in point. Thirdly, this plan permits a much more effective and economic administration. Workers associated with educational departments usually have a vacation amounting to about 3 months each year—that is, the full 2 summer months, a week at Christmas, and Easter, and the whole of every Saturday. Health workers have only the usual annual vacation of 2 to 4 weeks. So, the community receives about 30% more service for the same money when the nurse is under direction of the Health Department than if she is under direction of the Board of Education. By actual experience we have learned, also, that no matter how much those connected with the educational department subscribe to the idea that effective school nursing is determined by home visiting, the tendency is for the principal and the superintendent to occupy most of the nurse's time in the school building; it being a comfort to have a nurse at hand to do many things which have very little relation to the maintenance of positive health or the prevention of disease, such as being on call in case any child were to feel ill or have an accident.

Private Schools. Another reason for developing this protective work under the health rather than the school department is that only in this way can the health of all the children be protected. We have a very large school population outside public schools, and this group is entirely ignored and neglected by the system that places school nurses. No child in a community is safe unless every child is safe, and the New Jersey continuous child hygiene program under Health Department direction has been able to include in the school and infant hygiene work all the children, whether they attend public schools or not.

Now, in New Jersey, there are other reasons for suggesting that this is the most effective, most logical, and most economic way of protecting the health of school children. We have included in our child hygiene work a number of activities which we consider essential for the proper protection of mothers and children. First, we maintain a very active supervision and control over the midwives of the state.

We have found that they not only officiate at from 20 to 60% of the births in various communities and, therefore, must have an immense influence on the maternal and neo-natal mortality, but that they are also looked upon with a great deal of respect by the women they deliver and are often consulted, even if the mothers have received instruction from nurses. The nurses, under supervision of the Department of Health are in a position to report on the midwives and also to obtain their assistance with difficult families. The licensing and supervision of boarding homes is also included in this program and it is very simple to carry on this work by having each nurse look after the few licensed boarding homes which may be in her community. The same thing applies to maternity homes and problems associated with unmarried mothers and illegitimate infants. In short, by means of establishing a continuous child hygiene nurse in a community under the supervision of a properly staffed, and organized state bureau, it is possible with great economy and efficiency, both from a financial and public health viewpoint, to protect not only the health of school children but the health of mothers and infants and preschool children. Preventive public health work should begin at the beginning.

MEETING OF THE A. M. A. HOUSE OF DELEGATES

(Reported by Delegate W. Blair Stewart, M.D.)

The American Medical Association met in Portland, Oregon, July 8-12, 1929. The Medical Society of New Jersey was represented by Drs. Philip Marvel, Sr., E. R. Mulford and W. Blair Stewart. Four sessions of the House were held during the meeting with your delegates present.

The sessions were well attended, very enthusiastic, full of pep, and devoted to hearing reports and transacting the business in hand. The Journal was credited with 96,932 subscribers as of January 1, 1929, a gain of 2649 over 1928. The Spanish edition of the Journal was discontinued with a loss of over $6500, one-half of which was met by the Rockefeller Foundation. Hygeia has 73,163 subscribers; 73% laymen and 27% professional. The year was cleared with a profit of over $7900. The small number of physicians taking Hygeia was deplored. A copy of Hygeia should be on the waiting room table of every physician in the United States. Your delegate's copy is the most read and sought-after magazine on his table.

The Quarterly Cumulative Index Medicus will be continued at a slightly increased subscription. Its value is not only appreciated in our own country but has reached to foreign countries. Reports from the Councils on Pharmacy and Chemistry, Physical Therapy, Judicial, Bureau of Legal Medicine and Legislation, Medical Education and Hospitals and others were reviewed, discussed and commended.

The Scientific Exhibit was better than usual and a complete school of instruction in itself. This feature has grown in popularity and interest each year until it is now one of the most important features of the meetings. The general exhibit was arranged in its usual good form, was interesting, well patronized and fully successful.

The Board of Trustees dwelt upon the ever increased crowding of headquarters in Chicago and called attention to the need of an entirely new building. This need has been patent for some years but now the issue must be met. Action was taken by the House of Delegates instructing the Trustees and special committees to study the situation and draw plans, with power to bring the need to a focus. It is the desire to erect a strictly modern, fire-proof building of an architectural structure that will be a suitable monument to the Association as well as fill every need for years to come. The growth of the Association's work has far exceeded the most ardent expectations with a resultant use of every available unit of space. Membership assessment was considered but abandoned for a possible plan of donations. If every member would give, on the average, $10 to this building memorial quite a large fund would be in hand; but more of this later.

A comprehensive History of the American Medical Association was ordered prepared and to be in readiness when the new building is dedicated. "Corporation practice of medicine" was discussed in executive session and was referred to a special committee for study and report in 1930. The plan of the New York delegation for "The Physician's Home, Inc., N. Y." and its development by the A. M. A., was rejected as not meeting the needs of all. "Hospital classification" received much attention: "The Committee especially approves the idea of having hospitals classified and approved, but is of the opinion that such classification and approval will prove more satisfactory to all concerned if it is made by representatives of The American Medical Association under the authority and approval of the Association and not by any organization or individuals supposedly representing the elect but not officially representing the American Medical Association." The Hospital Register now lists 6852 hospitals of which number only 624 are approved for intern training of recent graduates.

The By-Laws received a few amendments. Chapter XVII of the By-Laws now reads: The annual Fellowship dues and the subscription price of The Journal of The American Medical Association shall be fixed by the Board of Trustees and the same shall be payable in advance, on the first day of January of each year, provided that the annual dues shall not exceed $8 and provided that the amount of the same shall be announced in The Journal of the American Medical Association not later than November 1 of each year. It was tentatively stated that it was possible that the subscription price of the Journal would be made $6.

The Woman's Auxiliary to the American Medical Association met simultaneously in very enthusiastic and profitable sessions. Mrs. J. Newton Hunsberger, Norristown, Pa., is the new President-Elect.

Dr. William Gerry Morgan, Washington, D. C., is the new President-Elect of A. M. A. The next annual session will be held in Detroit, Michigan, in 1930.

Lay Mirror Reflections

RESEARCH BACKS MALE REVOLT

(From the Literary Digest, August 17, 1929)

Back to pajamas, men! even for street wear in hot weather, may be the next slogan we shall hear in the advance of an International Men's Dress Reform Movement, almost if not overdue as a male revolt against the tyranny of fashionable heavy clothes for men. It is no longer news that the Beau Brummels of Buenos Aires are considered "sartorially correct" in wearing pajamas of varied stylish colors in warm weather on the streets of the Argentine capital. Chicago papers have hailed some intrepid heroes who dared to appear publicly in fluffy georgette garments, and a Southern editor, W. O. Saunders, of Elizabeth City, North Carolina, not only trod the streets of his own town pajama-clad but came to New York's Fifth Avenue to make the same successful experiment. An account of the French uprising against stuffy hot garments for men recently appeared in these columns. That this male rebellion is not confined to one country is shown by an article entitled "What Is Wrong with Men's Clothes?" contributed by Dr. Donald A. Laird of Colgate University to *The Scientific American* (New York, August). Dr. Laird is convinced that clothes make the man in respects more vital than mere appearance and social acceptability. Research and scientific opinion, he says, are rapidly accumulating data which indicate rather definitely that clothing may almost remake the course of human history. He explains:

"This newer knowledge helps one understand why we make more mistakes in summer, why usually sensible Germany has a growing number of

nude societies, why the Alps are healthful, how to keep cool in summer; and it also makes us pause and wonder about man's place in the decades to come.

White civilization at present is dominated by the male. History records numerous places, however, where women have dominated. Even now the explorers bring back to us reports from remote places where women dominate. This newer knowledge about clothes may make us wonder whether a female-dominated civilization lies in the not-so-distant future.

For years it has been known that slightly more boy than girl babies are born. Boy babies are the more delicate, however, and there are more early deaths among them. By the time high-school age is reached the ratio has been altered so that there is an excess of females. As years go on, this ratio is changed still more, industrial accidents eliminating more men than women; disease also reduces the number of men more than it affects women.

Total numbers alone will not necessarily determine which sex will dominate. We see a small handful of Englishmen dominating dark-skinned India. Vitality and ability are fully as significant as mere numbers. And on this point, also, modern science would point to a change to a dominance by the so-called gentler sex.

His Majesty's medical inspectors have just reported on thorough studies of English boys and girls who are entering industry. They report definitely that the girls are much better developed physically than the boys. It has been shown for many years that although women do not usually have the muscular strength of men, they are in the long run possessed of greater physical stamina and resistance. The royal medical inspectors are inclined to attribute a large amount of this difference to the clothing which is being worn.

It is only in the last two decades that women's clothing has differed essentially from that of man: and the puny, almost neurasthenic, women typical of the '80's seem largely to have disappeared, along with the disappearance of several square yards of woolen clothing per woman.

Fifteen pounds of clothing was the average worn by men a few years ago, and women wore 'a little more,' according to the books. Men are still wearing about the same gross tonnage of clothes as ever, while women's clothes have only about one-tenth of their former weight. This means that men are still wearing about a tenth of their body weight in clothes, while a dog, which seems to stand cold weather remarkably well, carries only about one-fiftieth of his weight in fur.

Man has to pay a price for this extra weight in several unusual ways. Energy has to be used, for example, to carry the extra weight around, even though the energy is not consumed in useful or productive work. This excess clothing worn by men also results in men living in a self-produced tropical climate in both summer and winter within their clothing, while women live in the atmosphere of the Alps. Tropical climates are enervating; the Alpine atmosphere is invigorating. The temperature within the clothing of the average man is 87.8° F.; for women's clothing it is only 80.6°. The relative humidity inside men's clothing is 70%, and for women it is only 55. The observed consequence is that men suffer from heat stasis and from excessive perspiration.

A miracle of nature is the way in which the human body is kept at a uniform temperature, almost regardless of the external temperature in which it is placed. When, however, the environment has a high temperature and a higher humidity, and the air circulation is diminished by the clothing, the body-cooling function is hampered, the basal metabolism is lowered, a load which may reach dangerous proportions is thrown on the sweat glands, and this affects the water distribution in the body and may influence the kidneys and other vital organs.

Dr. Leonard Hill, the eminent English physiologist, is urging radical changes in the clothing of men. Dr. E. Friedberger, of the University of Greifswald, recently presented the conclusions of a long study of clothing which were essentially the same as outlined in this article.

How well sunlight could reach the bodies of men and women was given special emphasis by Professor Friedberger. Using strips of paper which were sensitive to light he discovered that much light reached the body surface of clothed women, but that the sun's rays do not penetrate men's ordinary clothing.

The admission of air is of perhaps equal importance with that of vitalizing light-rays, and in this case, also, the clothing of men exacts a penalty.

Ultra-violet light penetration through ordinary clothing materials has been studied intensively by the Bureau of Standards of the Department of Commerce. They find that rayon, batiste or nainsook cotton, and linen allow more of these rays to pass through than do pure silk or wool. When the materials are dyed or slightly yellowish with age, the passage of ultra-violet is cut down. Woolen is only about half as transparent to these rays as is white cotton. The weave of clothing greatly affects its transmitting power. Crocheted or knitted weaves allow the most light, and also air, to bring their benefits to the surface of the body.

Thomas A. Edison always has a fan with him in hot weather. His loose clothing also amounts to a fan, since it allows minute air currents to displace the overheated air near the body surface.

Men will be cooler in summer if they wear suspenders rather than a belt. Tightly fitting garters hamper the blood-stream, as well as quickly becoming unsanitary themselves.

Ventilated oxfords are unusually comfortable. They seem to have gone out of fashion, and we have been told this spring that they will have to be made to order at a rather high price.

Since constriction is an important item against the garter, the same consideration should annihilate the tight-fitting starched collar entirely. The blood-vessels in the neck are large but are limited to a small area. 'Whenever you suffer from headache,' said Dr. Royal S. Copeland, 'my advice to you is to loosen the collar.' In addition to constricting the circulation of the blood, the tight, stiff collar prevents the free circulation of cooling or refreshing air currents over the surface of the body.

The collar, garter, long underwear, and lined clothing result in only the face and hands of men being exposed to the sun and air. In the case of women, fully one-third of the body surface is exposed more or less to sunlight and ultra-violet, while, practically, her entire body surface is continuously ventilated by air currents. She is much better, physically and mentally, for this. So we find Dr. Ephraim R. Mulford, president of the New Jersey Medical Society, saying: 'To-day our American women are in better physical condition than our men.'

'When we inspect the clothes worn by dancing marathoners', says the editor of *The Scientific*

American, 'do we wonder that a woman dancer will wear out two or three partners?'

There is also the matter of cleansing clothes. In this, women again have the advantage, their light garments and underclothing being readily and frequently washed at home. It is far from a luxury for a man to invest in enough hosiery and underclothing to allow a fresh change each day. Shirts should be allowed to air alternate days. Clothes closets should be provided with ventilators which allow outside air to enter, keeping the clothing in a more sanitary condition as well as making life a bit more miserable for moths.

Women are just as intelligent as men, and are capable of doing the work of industrial executives, as great numbers of them have shown. With their equal brain power, their dress, which adds to their mental and physical efficiency, may give them an increasing advantage over men in directing our civilization."

AN EXAMPLE TO OTHER HOSPITALS

(Newark Evening News, Oct. 22, 1929)

How Newark Beth Israel Hospital is extending hospitalization to persons of moderate means and establishing an organization to prevent illness as well as cure it was told by Frank I. Liveright, president of Beth Israel, last night to the hospital directors at their fall meeting.

"In the past our hospital has devoted its resources largely to patients confined in bed", Mr. Liveright said in the first report made of the hospital's activities since the new $4,000,000 institution was entered in February, 1928.

We have changed this old order of things in our new hospital, having a full appreciation of the fact that there are more persons in ill health and working than there are so acutely ill as to be confined to bed.

For this reason, we are developing a large outpatient department which we hope to make the core of our organization so as to prevent patients becoming so ill as to require confinement to a hospital bed.

It was found by experience that the request for hospitalization was greatest from patients of moderate means, so that a revision of rates was made to accommodate these patients. Private and semi-private rooms may now be had from $4 to $8 a day, and it was also decided to make no charge for newborn babies. Subsequent to these changes in rates our maternity service increased 30%.

The hospital today stands not as a building alone for the care and treatment of patients confined to its quarters, but as a health center providing ward service for ambulatory patients who are in need of physical examinations, diagnoses and treatment.

Extramural work now permits physicians to send their office patients who cannot afford private charges to our laboratories, x-ray department, dental clinic, plastic surgery clinic, heart clinic, and to our physiotherapy department for whatever work-up and examinations are requested by the physician in attendance.

The coming year, we further intend to inaugurate, with the coöperation of the Essex County Medical Society, a periodic health examination clinic."

Commending the medical staff, which has increased from 80 to more than 300 physicians, Mr. Liveright announced that Beth Israel's policy has been modified so that its facilities now are virtually open and available to all ethical physicians in the City of Newark who desire to make application for the treatment of their private patients.

The government of the medical staff is directed by a medical executive committee consisting of 5 of the senior attending physicians who are appointed annually, a new appointment being made each year, so that the board of directors is enabled to rotate its appointments, providing a democratic and efficient control.

Continuous day and night service in the hospital's pathologic laboratories is available. In the first 6 months of 1929, 44,191 laboratory examinations were made, as against 23,321 for the first 6 months of 1928.

Beth Israel's post-mortem record for 1928 was cited upon authority of the American Medical Association, as second of hospitals in New York, New Jersey and Pennsylvania. The local institution last year performed post-mortems in 64.5% of all deaths.

Statistics on the religious beliefs of patients treated in the new Beth Israel Hospital prove it to be non-sectarian, Mr. Liveright declared. During 1928, of all patients admitted, 61% were Jewish and 39% non-Jewish. Up to the present in 1929, of all patients admitted 58% were Jewish and 42% non-Jewish."

Communications

INTRADURAL ANESTHESIA

My dear Mr. Editor:

In the July, 1929, issue of the Journal, on page 506, Doctor Deibert, in his article entitled "Subarachnoid Block Analgesia", states that the contraindications to spinal anesthesia are cerebrospinal lues, tumors of the cord or brain, and persistent blood pressure below 100 systolic.

It seems reasonable to believe that cerebrospinal syphilis, cord and brain tumors, and persistent low blood pressure are but relative contraindications to intradural anesthesia, and that factors of some importance in these diseases are the stage of advancement of the malady, the complications thereof, the psychic and neurocirculatory stability of the patient, the anesthetic used, the amount of diffusion therewith of the spinal fluid, and the height to which anesthesia is induced.

One of my patients with a +4 spinal fluid was given intradural anesthseia as follows:

2-2-29—Spinocain (Metz) 2 c.c. at third lumbar. Anesthesia 2 inches above symphysis.

3-9-29—Novocain Heavy (Metz) 0.25 c.c at third lumbar. Saddle anesthesia.

3-23-29—Novocain Heavy (Metz) 0.19 c.c. at third lumbar. Saddle anesthesia.

4-6-29—Novocain Heavy (Metz) 0.22 c.c. at fourth lumbar. Saddle anesthesia.

Novocain heavy is described by Pitkin and McCormack in Surgery, Gynecology, and Obstetrics for November 1928, on page 713. The patient, a man of 56 years, had no reactions or after-effects.

I trust other case reports of similar nature may be secured for the Journal and published in brief statistical form, that we may the more accurately render decisions for or against the use of intradural anesthesia.

Sincerely yours,
G. T. Spencer

The Woman's Auxiliary

Portland Meeting of the A. M. A. Woman's Auxiliary

Reported by Mrs. Ephraim R. Mulford

Three delegates had the honor of representing the Woman's Auxiliary of the New Jersey Medical Society at the annual meeting of the Woman's Auxiliary to the American Medical Association, in Portland, Oregon, during June of this year. The delegates were Mrs. W. Blair Stewart, of Atlantic County; Mrs. Paul B. Reisinger, and Mrs. E. R. Mulford, of Burlington.

The stupendous amount of work accomplished and planned, as set forth in the reports submitted by the various state auxiliaries, is tangible testimony to the fact that it is no longer necessary for doctors' wives to search for a means of keeping an auxiliary alive. Each state medical society has a different need for its auxiliary, but the need is being met by these organizations. These women, bound together for organized service to the medical profession, are devoting their lives to the realization of their husbands' dreams. Their determination is to uphold the altruistic idealism of medicine, as well as to further its practical benefit to all mankind.

Physicians' wives are being educated in matters which pertain to public health, medical legislation, medical economics, and other subjects of vital interest to the profession. Because of this knowledge, acquired through the channels of their auxiliaries, members are better fitted to assist in the solving of the many perplexing problems, outside the realm of medical science, with which physicians are obliged to cope.

The report on "Public Relations", delivered by Mrs. Corey, of Dallas, Texas, showed how knowledge may be gained by the study of such subjects as state medicine, medical legislation and medical research. The Georgia auxiliary has a "Student Aid Fund" for medical students and also a "Health Film Fund". The films are used in health programs presented throughout the state. The Minnesota auxiliary is particularly interested now in collecting historical data for the State Medical Society. North Carolina has compiled an interesting scrap book. Missouri has a "Scholarship Fund". Pennsylvania has a similar fund as well as a "Medical Benevolence Fund". Texas, among its varied interests, has stressed health films. New Jersey's report presents her outlined activities. "Hygeia" was considered the best magazine to acquaint the public with accurate knowledge of health facts.

A great deal of time was given to consideration of the new constitution and by-laws—state auxiliaries were asked to have their constitutions and by-laws conform as nearly as possible to those of the National Auxiliary. The addresses of the retiring President of the American Medical Association, Dr. Thayer, and the President-Elect, Dr. Harris, were greatly appreciated and thoroughly enjoyed. Dr. Thayer suggested that the auxiliaries should support the movement against antivivisection and that the auxiliaries should keep themselves informed as to medical legislation so that, should they be called upon to assist their respective county societies, they might be able to intelligently coöperate in this work. Both speakers emphasized the fact that auxiliaries should work under the direction of their county medical societies.

The social side of the convention had been well planned, and was smoothly executed. Portland, with its naturally beautiful setting, lovely flowers and marvelous fruits, made an ideal convention city. One could not forget the Mount Hood trip or the wonderful Columbus River Drive. Neither could one find such unsurpassable hospitality as that displayed by the citizens of Portland. One afternoon America's physicians and their wives were entertained at tea in one of the most beautiful flower gardens in America. Another event, staged by a Portland man, was an indoor Horse Show, which was thoroughly appreciated by a large audience. Luncheon, at an attractive inn on the Columbia River Drive, was one of the afternoon's features for the ladies. A formal dinner for the delegates was given at the Hotel Multnomah on one of the evenings. Altogether, Portland has left with the New Jersey delegates some delightful memories of inspiring moments, marvelous scenery and hospitable hearts.

In closing, we wish to pay our respects and offer congratulations to Mrs. Allen Bunce, of Georgia, who made an admirable presiding officer and whose executive ability made every session of the auxiliary a tremendous success.

Report from the Woman's Auxiliary to the Medical Society of New Jersey to the National Body

Greetings to the Woman's Auxiliary of the American Medical Association from the Woman's Auxiliary of the Medical Society of New Jersey, the oldest state medical society in the United States. New Jersey has 21 counties, 600 auxiliary society members, 500 paid-up, and there is an auxiliary in every county—although 4 are rather inactive. The dues vary. In some cases they are $3 a year, in others $5. In the counties where the dues are 3 or 5 dollars a year, the organizations try to live within their dues and do not come before the public with benefits. In other counties, where the dues are smaller, entertainments are given to keep up the treasury. Dr. Henry O. Reik, Executive Secretary of the Medical Society of New Jersey and Editor of our Journal, in his inimitable, tactful manner has kept us informed of the wishes of the State Society and given us space each month in the Journal for our County Auxiliary reports. Our Field Secretary, Mrs. Taneyhill, has 3 special lectures which she has given with great success throughout the state—"Death Control", "The Story of Antitoxin" and the "Life and Work of Pasteur" (illustrated). She has received 76 requests for dates for speaking, has filled 69 engagements and addressed, in all, 6275 people.

Hygeia has been placed in public and school libraries, in clubs and public waiting rooms. A Periodic Health Examination Campaign was vigorously supported and pushed by several counties. Some of the auxiliaries are circulating among their members such splendid books as "The Doctor Looks at Marriage and Medicine" by Dr. Joseph Collins, and Cushing's "Life of Osler". Many noted men and women have addressed our county auxiliaries as part of our Educational Campaign. We had the rare pleasure of hearing Dr. Fishbein in his famous lecture, "Fads and Quackeries of

Medicine". In the Antidiphtheria Campaign, we have helped lay organizations to arrange for clinics, conducted educational campaigns by posters, distributed literature, planned lectures, and some women have actually taken their automobiles and brought in the children so they could be immunized against this pestilence. Four counties, on the request of the State Medical Society, assisted with the militant state society legislative program. Some counties have held group meetings and spent the time in making surgical dressings and hospital supplies.

The social life of physicians and their wives has been stimulated by the activity of the various county auxiliary social committees, and many helpful and beautiful friendships have been made. This perhaps is one of the greatest rewards for the sacrifices made in attending the meetings and working for the best interests of the chosen profession of our husbands and sons.

Respectfully submitted,
Martha Anderson Mulford,
for Mrs. George L. Orton, President.

Atlantic County

Mrs. Maurice Chesler, Secretary

The Woman's Auxiliary of the Atlantic County Medical Society held the first meeting of the season Friday, October 11, at the Chalfonte Hotel.

Election of officers took place with the following results: Mrs. John T. Beckwith was elected President; Mrs. Joseph Poland, First Vice-President; Mrs. D. Ward Scanlan, Second Vice-President; Mrs. Robert A. Bradley, Treasurer; Mrs. Maurice Chesler, Corresponding Secretary; Mrs. Lawrence A. Wilson, Recording Secretary.

The chairmen of the various committees include: Mrs. Edward Guion, Legislative Chairman; Mrs. Samuel Winn and Mrs. Maurice Axilrod, Courtesy Chairmen; Mrs. Robert N. Grier and Mrs. Samuel F. Gorson, Joint Membership Chairmen; Mrs. James H. Mason and Mrs. E. H. Harvey, Joint Entertainment Chairmen; Mrs. Percy Joy and Samuel Barbash, Educational and Welfare Chairmen; and Mrs. Samuel L. Salasin, Publicity Chairman.

Following the installation of officers, Mrs. Salasin, the retiring president, was presented with several beautiful plants. The Auxiliary is interested at present in aiding the Free Children's Ward of the Atlantic City Hospital. The Hospital Free Children's Ward Committee consists of Mrs. Samuel Winn, Chairman; Mrs. Walt. P. Conaway, Vice-Chairman; Mrs. Bernard Crane; Mrs. V. E. Johnson; Mrs. Sidney Rosenblatt; Mrs. Pauline North; Mrs. John Irvin and Mrs. William J. Carrington.

Those assisting the various chairmen are: Mrs. Joseph Poland; Mrs. Sidney Rosenblatt; Mrs. Theodore Senseman; Mrs. D. Ward Scanlan; Mrs. Robert A. Kilduffe; Mrs. John T. Beckwith; Mrs. Samuel Barbash; Mrs. Robert A. Bradley; Mrs. David Allman; Mrs. Myrtile Frank; Mrs. Carl Surran; Mrs. Louise Whealton; Mrs. W. Blair Stewart; Mrs. Louis Rosenberg; Mrs. C. H. Shivers; Mrs. Pauline North; Mrs. Mark Haley; Mrs. L. M. Walker; Mrs. Rivhard Bew; Mrs. William Edgar Darnall; Mrs. Thomas Taggart; Mrs. W. Price Davis; Mrs. John F. Massey; Mrs. Charles B. Kaighn; Mrs. Charles Ulmer; Mrs. Robert A. Bradley; Mrs. Milton S. Ireland; Mrs. Samuel L. Salasin; Mrs. Charles McGivern; Mrs. Lawrence A. Wilson; Mrs. David B. Allman and Mrs. Maurice Chesler.

Camden County

Mrs. T. P. McConaghy, Secretary

The Woman's Auxiliary to the Camden County Medical Society held a meeting on October 8, the President, Mrs. A. J. Casselman, presiding. There were 22 members present.

Mrs. W. Wescott and Mrs. W. Raughley each reported, as delegates, on the Atlantic City Convention, especially referring to the very successful business sessions. They were sorry to report that all members attending the convention did not attend the meetings, and it is hoped the attendance will be even larger at the next convention.

A number of engagements have been secured for Mrs. Taneyhill and additional ones are being solicited.

Mrs. A. J. Casselman was reëlected President for the coming year. The other officers elected were: First Vice-President, Mrs. Joel Fithian; Second Vice-President, Mrs. G. Hummel; Third Vice-President, Mrs. L. B. Hirst; Recording Secretary, Mrs. H. F. Westcott; Treasurer, Mrs. J. F. Buzby; Corresponding Secretary, Mrs. Geo. German.

Two new directors, Mrs. Jos. Roberts and Mrs. Reba Bushey, were chosen to serve with Mrs. Wm. C. Raughley, Mrs. John E. L. Van Sciver, Mrs. Alex. MacAlister and Mrs. Martin H. Collier. Program Committee, Mrs. A. H. Lippincott, chairman; Publicity, Mrs. Thos. P. McConaghy; Membership, Mrs. E. C. Pechin; Public Welfare, Mrs. R. Gamon; Legislature, Mrs. Wm. C. Raughley; Hospitality, Mrs. Oris W. Saunders.

It was our pleasure to have Mrs. H. B. Diverty, of Gloucester County, a guest, also our State President, Mrs. J. Hunter, Jr., who addressed us, and talked about our work for the coming year.

The meeting adjourned after which the doctors invited us to hear Dr. I. Grafton Day, their retiring President's address on "Laws"; and for refreshments.

Hudson County

Reported by Mrs. Joseph Binder

After a summer recess of several months, the Woman's Auxiliary to the Hudson County Medical Society resumed its meeting on October 18 at our meeting rooms at the Y. W. C. A. in Jersey City.

The most important business of the day was the installation of new officers: President, Mrs. John Nevin, 61 Kensington Avenue, Jersey City; First Vice-President, Mrs. A. D. Greene, 195 Palisade Avenue, Union City; Second Vice-President, Mrs. A. O. Largay, 937 Avenue C, Bayonne; Treasurer, Mrs. H. J. Perlberg, 25 Kensington Avenue, Jersey City; Recording Secretary, Mrs. J. M. Murphy, 2757 Boulevard, Jersey City; Corresponding Secretary, Mrs. Joseph Binder, 422 Bergen Avenue, Jersey City; Publicity, Miss A. Hetherington, 2801 Boulevard, Jersey City; Entertainment, Mrs. Geo. Culver, 25 Glenwood Avenue, Jersey City; Hygeia, Mrs. A. E. Jaffin, 41 Emory Street, Jersey City.

With such a staff and the coöperation of the excellent officers of the past régime and with the aid of all the members, the future year of our organization promises to be an active one.

Our past president, Mrs. William Freile, in a delightful talk, presented Mrs. John Nevin with a silver gavel.

Our program for the year was discussed and it was unanimously decided to concentrate more on interesting speakers along educational lines rather than on card medleys.

The December meeting is to be dispensed with because of its close proximity to the Christmas holidays.

Passaic County

Mrs. Louis G. Shapiro, Secretary

The first meeting of the season was held October 11 at the Woman's Club of Paterson, with 20 members present out of a total membership of 46.

The following officers were elected: President, Mrs. Jas. Morrill; First Vice-President, Mrs. Wm. Neer; Second Vice-President, Mrs. Chas. Russell; Secretary, Mrs. N. Lobsenz; Treasurer, Mrs. A. Shulman.

After welcoming 2 new members the business meeting was adjourned and a social hour followed.

Somerset County

Mrs. A. Levy, Reporter

The Woman's Auxiliary to the Somerset County Medical Society has resumed its activities. At the first meeting of the year, held on Tuesday, October 1, Mrs. Renner gave her report of the State Convention which was held in Haddon Hall, Atlantic City, last June. The Nominating Committee reported.

The second meeting was held October 10, at the Raritan Valley Country Club, preceding the joint annual dinner of the Woman's Auxiliary and the Somerset County Medical Society. At this meeting the following officers were elected to serve for the ensuing year: President, Mrs. C. R. Kay, First Vice-President, Mrs. E. G. Brittain; Second Vice-President, Mrs. Josiah Meigh; Recording Secretary, Mrs. Lancelot Ely; Corresponding Secretary, Mrs. Dan S. Renner; Treasurer, Mrs. Edgar Flint; Reporter, Mrs. A. Levy.

We congratulate Mrs. Kay, our new President. We know that she will carry on nobly the good work of her predecessor, Mrs. Renner.

Mrs. Hunter, President of the State Auxiliary, addressed the meeting. She mentioned some activities which were to be incorporated in the programs of all the auxiliaries, and urged particularly, that in each county, an entire meeting or part of a meeting be set aside for the purpose of honoring mothers of physicians. Mrs. Hunter concluded her talk with a very apt slogan, "The Will to Work Is the Way to Win". After the dinner, Mrs. Hunter was called upon by Dr. Kay, retiring President of the Somerset County Medical Society, to speak to the joint body. We enjoyed Mrs. Hunter's visit, and hope she will be able to come again soon. Her talk was a source of inspiration to all.

Sussex County

Reported by Mrs. Bruno Hood

The spring meeting was held at the Cochran House, Newton, at which time Mrs. Hood, president, entertained the auxiliary at luncheon. Mrs. Hunter and Mrs. Taneyhill were the out of town guests.

A midsummer meeting was held at the home of the President, Mrs. Bruno Hood. This was a most informal meeting and again the society was most fortunate and happy to have Mrs. Hunter and Mrs. Taneyhill, who gave them much needed help and advice.

On October 22, the Sussex County Medical Society celebrated its One Hundredth Anniversary with a dinner at Hotel St. Moritz, Pompton, to which the auxiliary was invited. This was a most enjoyable occasion. After dinner the members of the auxiliary withdrew to the balcony and after a most entertaining talk given by Dr. Reik, the society proceeded to elect officers for the coming year. The result of the election is as follows: President, Mrs. Robert White, of Franklin; Vice-President, Mrs. Fred Morrison, of Newton; Secretary, Mrs. L. B. Drake, of Ogdensburg; Treasurer, Mrs. Frederick Wilbur, of Franklin.

Union County

Reported by Mrs. H. V. Hubbard

The third annual meeting of the Union County Auxiliary was held in the Nurses' Home of the Elizabeth General Hospital. Among the activities and work done during the past year, mentioned in the President's Report, were the following: There has been an increase in membership and interesting meetings with speakers were held quarterly. A Chairman of Ways and Means, one for Public Health and Hygeia, and one for Publicity were appointed early in the year. Dr. George S. Laird, of Westfield, and Dr. W. J. Lamson, of Summit, were appointed our advisers from the Union County Medical Society by President Van Horn.

A card party was held in December to raise money for our work, and the ladies of Summit entertained us with a card party the day of our October meeting.

A circular letter, stating reasons why every doctor's wife should be a member of the auxiliary, was mailed to every doctor's wife in Union County; with good results.

The Secretary in her annual report stated that the offices of Past-President and President-Elect had been created and filled during this past year. The Chairman for Public Health and Hygeia had increased the number of subscriptions taken by our members and had arranged that a copy of Hygeia shall be in every Public Library of the county this year every month.

Our average attendance has been 14; and 18 new members were added to our roll during the year.

After the annual reports the following officers were elected: President, Mrs. H. V. Hubbard, Plainfield; President-Elect, Mrs. Harold D. Corbusier, Plainfield; First Vice-President, Mrs. Norman Currie, Plainfield; Second Vice-President, Mrs. George Orton, Rahway; Secretary, Mrs. Russel Shirrefs, Elizabeth; Treasurer, Mrs. D. McElhinney, Elizabeth; Director for 3 years, Mrs. George S. Laird, Westfield.

Mrs. Hubbard presented the letter P to the meeting as a symbol of the slogan for the year just beginning, which she presented as follows and inspired by the Five Little Peppers of the State Auxiliary:

Pretty petit peppers of our
Parent part this past period
prepared prodigious propositions
to perform
As President, I propose to point
our path until we pass the peak,
this present period—the pert phrase,
Pep up—Push—Put It Over!

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter.

The regular monthly meeting of the Atlantic County Medical Society was held on Friday evening, October 11, in the Gold Room, Hotel Chalfonte, Dr. Poland presiding. The minutes of the previous meeting were read and approved. Dr. Irvin acting as Secretary in the absence of Dr. Marcus.

Dr. Darnall reported for the Library Committee that 30 or 40 new books had been added to the Library, and that arrangements had been made with the Mayor and the Public Library to maintain the Hospital branch.

The Board of Censors reported that the application of Dr. Weinberg had been received and not approved. A motion was made and passed that the action of the Board of Censors in this matter be sustained by the society.

Dr. Barbash, Chairman of the Committee on Revision of the Constitution, read the changes and amendments suggested by the Committee. Since there were further changes to be made in regard to the dues, action on the amendments was deferred to the next meeting.

Dr. Louis Rosenberg and Dr. R. Austin White have applied for membership and Dr. Mable H. Pearson as a transfer from Philadelphia County. These were referred to the Board of Censors.

A letter from Dr. Morrison, Secretary of the State Society, regarding permanent delegates, was referred to Dr. Barbash for incorporation in the Constitution.

A letter from Mrs. Shreve asking for contributions to the Visiting Nurse Association was received and filed, as was a letter from Mr. M. B. Markland asking for contributions to the Travelers' Aid Society.

A letter from the Atlantic City Hospital urging members to subscribe to "Progress Notes", the monthly publication of the Hospital, was read by the secretary.

Dr. Poland introduced the President of the Medical Society of New Jersey, Dr. Andrew F. McBride, who said:

"This is a great and unexpected pleasure for me, and I want to tell you first how much I appreciate the opportunity to be here.

All of you are familiar with the problems confronting medical men of the state. In former years certain people have sought through legislation to enter the profession, and a good deal of unfortunate and unsatisfactory legislation has been accomplished. We have striven for a better understanding with the people so that legislation of this kind could not be brought about, but the state society can do little unless the county societies are active in support. We feel that an approach should be made to the legislators through their homes, and in following out this theory we have found members of the legislature ready to listen to our side of the story, and I believe that it has brought about a better understanding. In former years we have been accused of being a 'trust', but with the increasing understanding by the public of the work which we have been trying to do, I think that this impression has been to a large extent erased. I hope the members of the county medical societies will be active this year in assisting us in this work, and will realize that this work should not be left to the last minute. You should see your members of the legislature immediately after election.

I want to call to your attention the importance of supporting actively the Antidiphtheria Campaign. Every one knows there is no danger in diphtheria antitoxin and that this work is heartily endorsed by the State and County Boards of Health. There is an opportunity for doctors to do this work, and I think that they should do it, or if they do not want to they should delegate it to some other physician. I think also that they should not charge outrageous prices for their services. I know one doctor who charged as much as $50 for 3 doses of diphtheria toxin-antitoxin. I hope Atlantic County will keep up its interest in this. The greatest difficulty seems to be in reaching the pre-school child. I hope this will be brought forcibly to the attention of parents of children of pre-school age. Some Boards of Health send a postcard to the parents when the child reaches the age of 1 year, calling attention to the fact that it should be immunized. Statistics show that the greatest number of cases of diphtheria occur in children of the pre-school age, and likewise that the immunization has done a great deal of good. I hope that you will continue to aid in this effective work.

The State Society is about to inaugurate Medical Extension Courses sponsored by Rutgers University. The program is now in the process of being made up and I am sure that in the early winter months a well-thought out plan will be in effect and that your county society will want to take advantage of it. The program is in the hands of a very competent committee and about 8 lectures on very important topics will be given in different parts of the state.

I know that your Woman's Auxiliary is doing splendid work, and I want to congratulate the ladies of Atlantic County on their organization. I sincerely hope that their work will be appreciated."

The Secretary read a letter from Dr. Conaway thanking the society for flowers sent to Mrs. Conaway; also one from Dr. Sinkinson in appreciation of flowers sent to him.

The President displayed a ribbon awarded the society at the County Fair at Egg Harbor for Health Work Demonstration.

Dr. Poland brought to the attention of the society the fact that the annual election of officers would take place at the next meeting and appointed a Nominating Committee to consist of Drs. Conaway, Carrington, Scanlan, Kaighn and Barbash.

Dr. Salasin reported, in answer to Dr. McBride's plea for active support of the Antidiphtheria Campaign, that since 1922 there have been immunized in Atlantic City 21,000 children—and that in the year 1928-1929, 6000 have been immunized.

The President introduced the speaker of the evening, Dr. Louis H. Clerf, Assistant Professor of Bronchoscopy and Esophagoscopy at Jefferson Medical College, who said, in part:

"The discussion of pulmonary suppuration from a bronchoscopic standpoint would have been a relatively easy matter fifteen or twenty years ago, for at that time bronchoscopy was not often utilized in suppuration of the lungs except from a diagnostic standpoint. Today no general hospital should be without a bronchoscopic clinic or at least have a bronchoscopist on its staff.

That foreign bodies in the bronchus are of rare occurrence is not supported by the evidence at the Bronchoscopic Clinics; we have observed a large number of cases of suppuration of the lungs that were the result of overlooked foreign bodies not only in the air passages but occasionally in the food passages. Among the causes of non-recognition of foreign bodies are: Failure to elicit a definite foreign body history or to attach proper significance to the history; neglect either to have Roentgen ray studies or to have proper examinations made; and failure to have a diagnostic bronchoscopy performed in cases of obscure and unexplained chest findings.

Although asthma cannot be properly considered as a form of pulmonary suppuration, there frequently are present, not only cough and wheezing, but also expectoration of mucopurulent material; often patients present themselves with symptoms of asthma and ultimately a diagnosis of bronchiectasis is made. Unless one is able to see the interior of the tracheobronchial tree and observe the stenosis one cannot intelligently determine the cause of the 'asthma', nor can proper treatment be given.

As a general proposition bronchoscopy is not indicated in pulmonary tuberculosis. Occasionally a case where tuberculosis may be suspected but where the diagnosis cannot be verified can be cleared up by bronchoscopy.

Obstruction to drainage of a bronchus by the presence of new growth either benign or malignant, may simulate lung suppuration. A large number of cases of cancer of the bronchus, in most instances of primary origin, have been observed at the clinic. Often the clinical picture was that of lung abscess or bronchiectasis, occasionally hemoptysis was the outstanding symptom. In those cases where the growth involved the larger bronchi it was possible to remove a specimen of tissue for histologic examination. Occasionally it was not deemed advisable to remove a specimen for biopsy; the bronchoscopic findings were suggestive of infiltration of the bronchial wall because of fixity and rigidity of the bronchus and were sufficiently significant to warrant a diagnosis of malignancy, and the carrying out of deep Roentgen ray therapy.

With prompt and adequate spontaneous drainage of an abscess of the lung recovery promptly follows. In the cases where drainage is not adequate the process does not clear up spontaneously and it is in this group of cases that bronchoscopy is of value as an aid in treatment. All forms of treatment of suppuration are dependent on securing and maintaining adequate drainage. It has been demonstrated over and over again that drainage can be improved through the natural passages by bronchoscopy. Certain interesting clinical observations have been made on a group of cases of lung abscess that have been under observation and treatment at the clinic. It was found that a majority of the cases of abscess occurred between the ages of 20 and 40 years. This is noticeably true in the cases of abscess of the lung which followed tonsillectomy. The location of the abscess with relation to the lobes of the lung is also of interest. Formerly it was believed that abscesses, like foreign bodies, were most commonly found in the lower lobes, notably on the right. We have found that in over one-half of the cases treated at the clinic the abscesses were in the upper lobe.

In those cases selected for bronchoscopic aspiration the treatments are carried out once or twice weekly as indicated in the individual case. They consist of aspiration of the pus through the bronchoscope, by means of independent aspirating tubes, followed by instillation of some medicament. In conjunction with this there is the usual medical treatment indicated in these cases. Fever is not a contraindication to bronchoscopy unless it be due to an acute pneumonitis with diffuse lung involvement. Very often fever indicates impaired drainage and when this is improved by bronchoscopy the temperature very promptly returns to normal.

Considerable very interesting work is being done in connection with children's clinics investigating cases of patients with cough of long standing. It has been repeatedly found that many of these little patients have disease of the nasal accessory sinuses with a tracheobronchitis or early bronchiectasis. The ultimate outcome of nasal and bronchoscopic treatment cannot be determined at this time; it seems reasonable to assume that more can be done with early cases than can be accomplished in adult patients with a well developed bronchiectasis".

Discussion

Dr. Charlton: We are greatly indebted to Dr. Clerf, for coming here this evening and pointing out to us the many uses for bronchoscopy. A few years ago we thought of it as being used only for removal of foreign bodies; since then, as shown by the charts thrown on the screen tonight, we have learned that the foreign body work is only a small percentage of its uses. Bronchoscopy has opened a large field for diagnosis and treatment of chest conditions. Dr. Clerf has shown us that a large percentage of lung abscesses follow tonsillectomies, especially between the ages of 20 and 40 years. One theory is the aspiration of blood into the larynx during the general anesthesia, which Myerson was able to find in over 70% of cases examined by him. The other theory is thrombi from the veins and lymphatics that have been severed.

I was very much interested in what he had to say about so many bronchoscopy clinics being established. I think it will only be a short time until every Class A hospital will have one and that we should take steps to establish one here.

Dr. Dalton: I know that we all appreciate Dr. Clerf's discussion. Bronchoscopy is entirely different than we once thought of it. I was surprised to hear that the removal of foreign bodies forms such a small percentage of the total number of cases. There are a great many points that I should like to hear discussed, such as intratracheal anesthesia and the way in which bronchoscopy is used for diverticula of the esophagus.

Dr. McGivern: One can hardly appreciate the effort and delicacy of technic that the bronchoscopist has to put forth unless one has done throat work. It is particularly interesting that the lung abscess should occur following the tonsil operation in patients between 20 and 40. This is an indication, to me, that less general anesthesia should be used. It is of interest to know that there are no lung abscesses in Europe following tonsillectomies.

Dr. Clerf's work is very highly technical and the results in Philadelphia are very surprising.

Dr. Olmstead: I deeply appreciate the excellent presentation of Dr. Clerf's slides and talk and there is no doubt that this has developed into a highly specialized field of medicine. Bronchoscopies are a valuable aid in the diagnosis of various types of lung conditions. One point Dr.

Clerf's talk stresses is the vast number of lung abscesses following tonsillectomies and it seems to me that the profession is slow to appreciate that general anesthesia is used far more often than it should be and that this type of anesthesia should be used as little as possible.

Dr. Clerf: Intratracheal anesthesia has for its purpose the delivering into the trachea of ether vapor. Several forms of apparatus are available. The tracheal tube is best introduced by direct laryngoscopy. The method is very useful in surgical procedures about the mouth and face, also in thoracic surgery.

With regard to the relative infrequency of lung abscess following tonsillectomy on the Continent, I can ascribe no reason. There is no positive data available concerning the cause of abscess; for that reason we are unable to absolutely prevent its occurring. I believe that wherever tonsillectomy is done under general anesthesia, lung abscess will occasionally occur.

A rising vote of thanks was given Dr. Clerf, and the meeting was adjourned.

BERGEN COUNTY

C. H. Littwin, M.D., Reporter

Upon invitation of Dr. Ralph O. Clock, Honorary Member of the Society, the October meeting was held on Wednesday afternoon, October 16, at the Lederle Antitoxin Laboratories in Pearl River, N. Y. The meeting was called to order at 3 o'clock by President George M. Levitas. The secretary read a letter to the effect that the state society dues had been increased to $15 and President Levitas pointed out the necessity of increasing the county society dues. Thereupon the society unanimously voted to make the annual dues $25.

The speaker of the day was Dr. John Wyckoff, of New York, Director of the Third Medical Division of Bellevue Hospital; Associate Professor of Medicine of New York University; Chief of the Adult Cardiac Clinic at Bellevue Hospital, Chairman of the Heart Committee of the New York Tuberculosis and Health Association. The Cardiac Clinics in Greater New York are organized into a Committee on Cardiac Clinics which is a sub-committee of the Heart Committee of the New York Tuberculosis and Health Association, and of this Committee Dr. Wyckoff is the Chairman. This organization has gradually brought about uniform methods of nomenclature, diagnosis and treatment and an intensive study and trial of various preparations of digitalis.

The speaker chose for his subject "The Rationale of Digitalis Therapy". Because of his extensive experience, making it possible for him to follow some 7000 patients who have received digitalis therapy since 1919, there probably is no greater authority on the practical use of digitalis than is Dr. Wyckoff. Throughout his talk, he laid stress on the variations in digitalis, pointing out that even when grown in the same country, in the same field, digitalis varies in different years; also that when grown in different fields and in different parts of the country it is never the same. He emphasized the fact that digitalis leaf varies in 3 different ways: (1) in its content of active principles; (2) in absorptive qualities; (3) in its power of being eliminated. The speaker then pointed out a second set of variables, which exists because digitalis leaf is used in different preparations. (1) It is used as a powdered leaf in capsules, in tablets, and in pill form; (2) it is used as a tincture, fluid extract and as an infusion; (3) and its active principles are extracted and used. Each of these preparations varies in the amount of active principles which it contains, according to the leaf from which it is made. Still another variation exists, due to the fact that the drug is administered in different ways; it may be given by mouth, by rectum and intravenously.

Next the speaker pointed out the various types of heart failure in which digitalis therapy is indicated; particularly auricular flutter and auricular fibrillation. He emphasized the necessity of a standardized preparation in order to apply dosage intelligently, saying that no 2 preparations are of the same strength and that it is impossible to compare the frog-unit method of standardization established in Germany with the cat-unit method originated by Hatcher of Cornell. Dr. Wyckoff related briefly the study of digitalis dosage in the New York Cardiac Clinics and the historic development of standardized digitalis tablets which are now used in the clinics. These tablets contain ½ unit, 1 unit, 2 units, etc., of whole digitalis leaf standardized by the cat-unit method of Hatcher, and the speaker stated that in his opinion such tablets unquestionably constitute the best method of inducing digitalization. The best way of giving these tablets is by mouth. However, if the patient is vomiting from some cause, he advocated giving digitalis by rectum in the form of suppositories. For intravenous use in emergencies he recommended ampules of strophanthin.

With regard to the best method of inducing digitalization, the plan adopted in the Cardiac Clinics is to bring this about within 36 to 48 hours. For this purpose, the speaker recommended 6 units (9 gr.) of digitalis and 8 hours later 3 units (6 gr), and again 8 hours later 3 units (6 gr.) of digitalis. He recommended that the patient always be seen before the third dose is given. On subsequent days of treatment usually 2 units (3 gr) are given to maintain the state of digitalization but the exact amount must be determined for each individual patient. When a patient is fully digitalized, he eliminates digitalis at the rate of 1 to 2 units (1½ to 3 gr.) daily. The maintenance dose is that amount of digitalis which will replace the amount that is being eliminated.

Drs. Hallett, Trossback, Levitas and others participated in the discussion which followed. In answer to a request to state what preparations in his opinion are most reliable, Dr. Wyckoff said that the Lilly ampules of strophanthin had given good results for emergency intravenous use. Concerning digitalis preparations to be administered orally, he said that only preparations of whole digitalis leaf had proved reliable. Lederle tablets are prepared from standardized whole digitalis leaf, in accordance with the methods worked out and adopted by the Cardiac Clinics; one very great advantage of the Lederle tablets is that they possess uniformity of activity and this uniformity is assured by the fact that when not more than 10% of the supply of standardized powdered leaf had been used, a similar amount of standardized powdered leaf is added to the remaining stock from which the tablets are made. Hence there is no appreciable variation in the clinical results obtained from these tablets.

At the conclusion of the scientific session, the members of the society were conducted on a brief tour of the laboratories. They were shown the

new Pharmaceutical Department where standardized digitalis tablets were being made; the filling of liver extract; and the manufacture and testing of other pharmaceutical products. Next the Milk Department was visited, where new equipment for filling and bottling acidophilous milk was demonstrated. And, finally, a demonstration was given in the stable of obtaining from horses the antipneumococci serum as prepared by Felton.

Supper was served at 5 o'clock, after which souvenir packages were distributed containing digitalis tablets and suppositories, liver extract, ephedrin inhalant, diphtheria toxoid and other biological products.

The 72 members of the society who attended this meeting extended a rising vote of thanks to Dr. Clock for the program which he provided.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter

A special meeting of the Burlington County Medical Society was held at the Jeanes Hospital, Fox Chase, Philadelphia, Pennsylvania, Wednesday, September 25, 1929. The kind invitation to the society by the hospital management afforded an opportunity to inspect this new "cancer center" with its hospital and facilities. There were 19 members and guests present. A tasty luncheon was served at 2 p. m., after which an inspection of the hospital followed.

Mr. Hollingshead, representing the board of trustees, welcomed the society. He said that the hospital was provided for in the will of the late Anna T. Jeanes who died in 1907. The board of trustees has carried out her wishes in erecting this hospital on the Jeanes' homestead for the study, care, and cure of cancerous patients.

Dr. Roscoe W. Teahan, medical director, gave us a few facts concerning the hospital: the name, Jeanes Hospital; location, Fox Chase, Philadelphia, Penna.; accessibility, 10 miles from the City Hall of Philadelphia; management, by a Society of Friends; value of property and equipment, $1,000,000; grounds, 64 acres; endowment, $2,650,000; purpose, cancer and diagnostic hospital; accommodation, 72 patients; eligibility, all races and creeds; rates, reasonable and adjusted in accordance with patient's ability to pay. The desire is to coöperate with the medical profession. All nurses are graduates and there is a competent staff with 17 outside consultants on call. Each patient admitted receives a routine complete history and physical examination, urinalysis and blood count, with blood sugar, urea and Wassermann tests.

Dr. Teahan continued with the scientific program and discussed his subject, "The Early Recognition of Cancer". He said that cancer is on the increase; that more people in proportion to the population develop cancer than formerly; 1 of every 9 individuals over 40 years of age dies of cancer. Cancer is curable at the start. It has its origin in previously unhealthy tissue. Dr. Bloodgood says that this is the day of microscopic surgery. Palliative treatment consists of x-rays and radium.

Several cases were presented. The first was in a man, 53 years of age, anemic, with abdominal symptoms of 2½ years' duration and a palpable mass in the abdomen. Liver extract was given and the cecum containing cancer was removed under local anesthesia. Patient is now apparently in good health. The next case was in a girl of 16, with sarcoma of the orbit; symptoms for past 10 years. A third case was adenocarcinoma of nose. The nose was removed by cautery.

At the conclusion all present expressed their appreciation of what was a most profitable afternoon.

CUMBERLAND COUNTY

E. S. Corson, M.D., Reporter

The program of the Cumberland County Medical Society afforded a rare treat for the members and friends who assembled in the Hotel Cumberland. It was the time for annual election of officers and those chosen were: Edward H. Van Deusen, President; E. S. Franckle, Vice-President; H. H. Wilson, Treasurer; E. C. Lyon, Secretary; and E. S. Corson, Reporter. Delegates to State Medical Society: E. S. Corson, Charles W. Wilson, H. S. Branin; Member Nominating Committee, Charles E. Sharp.

The annual picnic was reported as an enjoyable and successful affair. The occasion was honored by presence of the President of the State Medical Society who spoke on the various activities the Society should engage in during the coming year. Dr. D. S. Bostwick was elected a member of the society.

Dr. E. S. Fogg, a former practitioner of this city, and active member of the society, from Wasco, Cal., was present, and expressed his appreciation of the opportunity to meet so many old professional friends, and the highly scientific feature of the subjects discussed.

Dr. J. Grier Miller lectured on "Medical Diseases of the Kidney from a General Point of View". He said: "The diagnosis in kidney diseases should depend upon the accumulation of facts. Previous diseases affecting the patient should be considered. The blood pressure should be taken, blood studies made and also dye tests to determine the relative degree of function. Interpretation of these facts depend upon knowledge and experience of the physician.

Until recently the urine was regarded as an excretion, now it is regarded as a filtration product containing blood plasma and protein, while the urea is left behind. The embolic form of kidney disease has a definite history of subacute bacterial endocarditis the débris from which lodges in the kidney. The most common condition is nonembolic, involves glomeruli here and there, and is due to acute infection by the streptococcus hemolyticus; often traceable to a sore throat. Clear up the focus of infection and keep the patient in bed a reasonable length of time. The diffuse condition involves the entire kidney and there is fever with puffiness of the eyes. The present opinion is that it is due to constriction of the afferent artery leading to the glomeruli. The chronic diffuse condition affects young and middle aged, causing headaches and apoplexy.

Dr. P. S. Pelonze, of Philadelphia, discussed the "Common Bladder Symptoms Encountered in General Practice". There are but few individuals who have normal bladders, and the practitioner is confronted with all sorts of symptoms. Those presenting blood and pus have definite lesions, but there is a big group not recognized in our offices. Some are unable to relax the sphincter muscles in public, and develop back pressure pathology. In this class, acute retention is often a psychologic freak, and there is difficult entrance of a sound through a free channel. Some cases simulating stone in

the bladder are really early tabes with exaggerated reflexes, causing a clicking noise when the sound is rapidly passed. If there is a stone, pain is present. The irritation of the trigone with congested veins may be a source of frequent urination. One drop of 1% solution of silver will allay the irritation.

ESSEX COUNTY

E. LeRoy Wood, M.D., Reporter

The 114th annual meeting of the Essex County Medical Society was held Tuesday, October 1, 1929, in the auditorium of the Academy of Medicine, Lincoln Park, at 8:45 p. m. The meeting was called to order by the President, Dr. Richard N. Connolly. The minutes of the last annual meeting, and also of the meetings of April and May, 1929, and of the Delegates to the State Convention, May 28, 1929, were read and approved. The President had appointed as tellers for the election of officers, Drs. Wm. O. G. Quinby, H. A. Tarbell, R. H. Scott, and A. Yaguda; he also appointed tellers for the election of new members, Drs. E. Reissman and Henry H. Kessler; and as auditors, Drs. Philip G. Hood and Henry B. Orton.

Dr. Andrew F. McBride, President of the State Society, was welcomed as guest. He congratulated our society on its activities and spoke on the aims of the State Society, and asked for continued support from the counties. He spoke of the Antidiphtheria Campaign, stating the importance of immunizing the pre-school child in order to prevent diphtheria, and urged that doctors should do this work of immunizing. He spoke very highly of Women's Auxiliaries, stressing the important work that is done by these women. A unanimous vote of thanks was extended to Dr. McBride.

Dr. R. H. Rogers read his Treasurer's report, with recommendation that dues for 1930 be $19. The President, as provided in our By-Laws, put to a vote this recommendation on dues, and with hesitancy but without debate it was approved. The Special Committee on Radio Broadcasting reported investigation of the offer of free service, but without conclusion as to what could be done. Committee on Illegal Practitioners reported some investigations.

Dr. Kraker for a Special Committee reported on methods for collection of patients' bills; some collection agencies desire our backing, but he recommends as better possible arrangements through our banks for such financing. Dr. Eagleton, as Chairman of the Committee on Medical Education and Hospital Activities, reported that Director Murray has consented to have a list of the hospital activities of Essex County published each month in the City Bulletin. It is desirable to have the activities of the hospitals scheduled at specified times of the day, so that doctors may, if they care to, visit the hospitals and know just what function is being performed at that time. Dr. Danzis said a few words to supplement Dr. Eagleton, speaking approvingly of this work. Dr. Bennett, as Chairman of the Committee on Necrology, reported the deaths of the following members: Drs. Charles Franklin Abraham, Welldyn Pyle, John Hemsath, Samuel J. Stage, William C. Fischer, Karl M. Blum, Samuel E. Robertson, Manning N. Robinson, David E. English, William F. Beggs, Daniel Elliot, and Edwin E. Bond. Upon motion duly seconded and carried, the audience rose and stood one minute in respectful silence. Dr. A. R. Bianchi reported for the Maternal Welfare Commission, that this body has done fair work, and has received full coöperation from the doctors. Conditions in his community have improved 75%.

Dr. E. G. Wherry, for the Milk Commission, reported opposition to an attempt of certain interests in Massachusetts to allow marketing of "Pasteurized Certified Milk". The market for Certified Milk is increasing and milk of other grades has improved.

Dr. Morrison, for the Welfare Committee, reported that this committee has been exceedingly active during the past season. A good number of doctors attended a hearing before the Essex Legislative Delegation. They placed before them ideas of the medical profession and received a warm reception. Senator Wolber gave admirable service.

In the absence of Dr. O'Crowley, Dr. Englander for the Committee on Periodic Health Examinations reported the committee had not been active.

Dr. Wherry, for the Committee on Ethics, reported that they have had nothing to do this year.

Dr. Wherry, for the Committee on Diphtheria Prevention, reported a very successful year. Dr. Morrison supplemented Dr. Wherry's remarks, in that they are attempting to put over the immunization of the pre-school child. The fee for such immunizing should be set by the committee. Dr. F. W. Pinneo, for the Council, had nothing to report. The President's address followed. He spoke of the bills before the last Legislature regarding license to practice medicine, Bill 290 to control and regulate the practice of surgery, being one to be watched. He expressed his grattitude to the Essex County Medical Society for the coöperation received during his term of office.

Dr. Wherry moved that the retiring President's Address be sent to the Journal of the State Medical Society for publication. Pursuant to the resolution of the society at the last annual meeting, the election of officers had been conducted by publishing to every member the nominations by a Nominating Committee (Drs. James H. Lowrey, Max Danzis, and Eugene W. Erler) appointed by the President, with the statement that any nominations might be added if signed by 3 members and received by the Secretary prior to September 21; that all nominations would be then issued to every member with the call for the annual meeting, when voting would be by ballot on personal registry at the meeting only, polls being open from 7:30 until 10:00 p. m. Election would be determined by the majority of votes cast. Under this ruling the tellers now reported that the candidates elected were: President, Arthur W. Bingham; Vice-President, Henry C. Barkhorn; Secretary, Frank W. Pinneo; Treasurer, Robert H. Rogers. Councilors for 2 years, Linn Emerson, C. B. Griffiths, D. A. Kraker, and Alfred Stahl. There now being a vacancy for the unexpired term of Dr. Barkhorn, it was moved, duly seconded and carried, that the next highest vote in the tally should determine the election of Councilor for this term. This was found to be Dr. Van Ness, who was declared elected for 1 year. The Constitution and By-Laws of the State Society, just revised in June, called for the abolition of former permanent delegates and annual delegates, and the election of 41 delegates from Essex, 14 for 3 years, 14 for 2 years, and 13 for 1 year, with an equal number of corresponding alternates. The complete list of nominees presented was unanimously elected:

For Delegates to Medical Society of New Jersey

Delegates 3 years—Henry C. Barkhorn, Chas. D. Bennett, Chrls. C. Beling, Arthur W. Bingham, R. N. Connolly, Max Danzis, Linn Emerson, F. R. Haussling, David A. Kraker, James H. Lowrey, Frank W. Pinneo, E. S. Sherman, Alfred Stahl, H. J. F. Wallhauser.

Alternates 3 years—Maurice Asher, Chas. F. Baker, Chas. G. Crane, Frank Devlin, J. Irving Fort, William Gauch, John W. Gray, Ernest Gennell, Wm. H. Hicks, Paul H. Hosp, Guy Payne, C. F. Rathgeber, Robt. H. Scott, L. Szerlip.

Delegates 2 years—John F. Condon, T. W. Corwin, R. H. Dieffenbach, Ambrose F. Dowd, C. B. Griffiths, E. Zeh Hawkes, Charles L. Ill, A. J. Mitchell, E. D. Newman, G. B. Philhower, Edward W. Sprague, Edward Staehlin, Theodore Teimer, Elmer G. Wherry.

Alternates 2 years—Fred A. Alling, John V. Bissett, Elbert A. Curtis, F. R. Carbone, J. I. Echikson, Adolph Flachs, Albert S. Harden, Lee W. Hughes, A. G. Hulett, H. H. Kessler, Ernest A. May, Clement Morris, S. A. Muta, Carl H. Wintsch.

Delegates 1 year—Geo. Blackburne, H. N. Comando, Edgar A. Ill, H. B. Orton, Wm. O'G. Quimby, Robert H. Rogers, E. Reissman, Edwin Steiner, E. A. Snavely, W. A. Tansey, H. Roy Van Ness, E. LeRoy Wood, A. C. Zehnder.

Alternates 1 year—G. Herbert Allen, Linus W. Bagg, E. W. Blakely, Richard J. Brown, E. P. Cardwell, Philip Conlon, J. A. Clarken, Herman Cohn, Fletcher F. Carman, Wm. D. Crecca, Jos. L. Fewsmith, Benj. A. Furman, Arthur J. Ganley.

For Reporter, the President nominated Dr. E. LeRoy Wood, and on motion duly seconded and carried, he was declared elected. The Auditors reported examining the Treasurer's books and finding them to be correct.

For the Committee on Revision of Constitution and By-Laws, Dr. Kraker, as Chairman, reported the following revisions:

Article III, Constitution—Annual Meeting

"The regular annual meeting of the society shall be held on the second Thursday of October each year" (etc.).

Article XIV, Sec. 4—Nominating Committee

"The President shall appoint annually a Nominating Committee of 3 members who shall select a list of nominees for vacancies among the officers, council, and delegates of the society and shall cause to be published by letter to all members of the society on September 15 each year this list of nominees.

Other names may be added if submitted in writing, signed by 3 members in good standing and put in the hands of the Secretary by September 30. All nominations made shall then be published with the call for the annual meeting as the Official Ballot and used for the election on the second Thursday of October. Voting shall be by individual ballot of members in good standing personally registering at the meeting only. Election shall be determined by a majority of the votes cast.

Polls shall be opened from 8 to 10 p. m."

Article V, By-Laws. (Add) "Within 10 days after the annual meeting the Treasurer shall render a bill to each member for dues for the succeeding fiscal year. If payment has not been made by December 1 following, a second statement shall be immediately sent by the Treasurer to every such member. If on January 1 payment has not been made a third notice shall be immediately sent to every such member, plainly stating that he is now delinquent and has lost his rights as a member in this and in the State Society and A. M. A. and his name will be deleted from the annual Official List of the State Society unless payment is received before February 1 when the List goes to press. Full payment of all dues shall automatically restore all rights and privileges.

Upon motion duly seconded and carried these revisions were adopted. The committee recommended continuance of this work with the promise that next year a complete re-writing of the Constitution and By-Laws ready for permanent printing would be presented.

The tellers reported the election of the following 25 new members (23 new, and 2 reinstated) recommended by the Membership Committee of the Council:

Benjamin B. Adelman, 585 Elizabeth Avenue, Newark; Charles B. Anuario, 157 So. Centre Street, Orange; Charles W. Barkhorn, 45 Johnson Avenue, Newark; Joseph F. Barrett, 1630 Springfield Avenue, Maplewood; W. A. Berger, 328 Sussex Avenue, Newark; Francis P. Carrigan, 205 Franklin Avenue, Nutley; John Wesley Coburn, 25 So. Munn Avenue, East Orange; David S. Eisenberg, 633 Sanford Avenue, Newark; Irving E. Fink, 204 Scheerer Avenue, Newark; A. S. Finkelstein, 174 Johnson Avenue, Newark; Louis J. Gelber, 41 Lincoln Avenue, Newark; Philip Grossblatt, 41 Avon Avenue, Newark; George R. Henshaw, 267 Orange Rd., Montclair; C. O. Hilton, 598 North Fifth Street, Newark; Maurice Kleinman, 845 Clinton Avenue, Newark; Jennings S. Lincoln, 140 Watchung Avenue, Upper Montclair; Alvi T. Lipphard, 622 Stuyvesant Avenue, Irvington; Jaques W. Maliniak, 31 Lincoln Park, Newark; William F. Matthews, 11 Seymour Street, Montclair; John J. Moretti, 21 Sunset Avenue, Newark; H. C. Povey, 23 Franklin Street, Newark; F. Sbarra, 283 North 7th Street, Newark; Benjamin Saslow, 743 So. 16th Street, Newark; Harry Simon, 801 Bergen Street, Newark; John Wesley Tildon, 54 No. Clinton Street, East Orange.

The meeting adjourned to the customary collation and social hour.

Eye, Ear, Nose and Throat Section, Academy of Medicine of Northern New Jersey

E. LeRoy Wood, M.D., Reporter

The Eye, Ear, Nose and Throat Section of the Academy of Medicine of Northern New Jersey, was favored at its meeting Monday evening, October 14, by Dr. Ernest A. May, Director of the Metcalf Institute of Radiotherapy, of Orange, N. J., with a paper entitled "Radiotherapy in Diseases of the Eye, Ear, Nose and Throat".

"The practice of using radium and deep x-rays is recent, and like every new method has been empiric. It had been hoped that this would be a specific remedy for cancer, but disappointment followed the first over-enthusiasm. A few good results together with a great number of failures, heavy tissue reactions and severe suffering were seen. The physical and biologic power of this new agent was unknown and is still not fully comprehended, and the few beneficial results were more or less haphazardly obtained. Duplications were easily turned into complete failures by small overdoses or improper application.

It is really not quite fair to compare, at the present time, the actual value of radiotherapy

with the value of surgery, and I doubt whether this should ever be undertaken. The two methods are not competitors; they belong together and from this point of view we should estimate their worth.

The study of effect of radiation on new growth has brought more light to a proper conception of cancer and has even detected several new groups by the grade of reaction to the rays. There is a law that the more differentiated in structure a growth is, the less it can be influenced by radiation; and the more its structures approach the embryonic type, the better will be the response to radiation. We can, thus, through better histologic classification improve on our prognoses and draw conclusions as to what can be expected from radiotherapy. In hopeless cases it is valuable as a palliative agent. It relieves or prevents pain and arrests or prevents bleeding and discharges. There is considerable difference in the employment of radium and x-rays for palliative or curative purposes; in the latter the intensity of radiation is higher, and approaches more nearly the importance and severity of a major operation.

I am convinced that we must expect our results from the direct action of the rays on the tumor; reaction of the tumor bed and of the body is important but secondary. We can only expect results by sending extremely high doses to the tumor. If, for instance, in carcinoma of the maxillary antrum the floor of the orbit is invaded, we must sacrifice the eyeball, if necessary, in order to obtain access to the growth, for whenever a particle of the tumor is left alive we shall have a recurrence and death may result.

On the other hand, radiotherapy enables us in operable cases to be more conservative in surgical procedures. We may be able to save a larynx by the combination of surgery and radiotherapy in cases where the surgeon would perform a laryngectomy. This emphasizes the importance of coöperation.

Whether radium or x-rays should be employed depends upon the individual case. X-rays are mainly used for external radiation, and heavy doses should be given. When only small amounts of radium are on hand x-rays are preferable, as a good dose of x-rays is better than a poor dose of radium. Radium is excellent in localized surface application, for introduction into body cavities, and in direct implantation in tissues. There is distinct advantage in most cases by giving a preoperative treatment; weakening the cells of the growth, adds to safety of the operation to follow and tends to prevent distant metastasizing. Some of the bulky growths may be reduced in size, the drainage of cavities made easier, and therefore, possible present inflammatory conditions will be reduced. This will render the surgical procedure simpler and tend to a better permanent result.

It is most important to heal any infection before attacking the tumor, as an infected growth will respond to radiation only to a limited extent. Any inflammation is bound to increase the malignancy of a tumor and make it more resistant to treatment. Lues will invariably darken the prognosis in cancer. Preoperative radiation is also of great value when attacking metastatic involvement of the regional glands, as for instance, on the neck. It may render borderline and inoperable cases operable, thus enabling the surgeon to perform an eradicating operation.

As stated above, the dosage to be given must always be adapted to the individual case, however, nothing should be expected from small doses. I even go so far as to say that unless from 5 to 7 erythema doses are applied to the tumor good results will not be seen. This dose must be given within a certain space of time, as for instance 2 weeks, and should be evenly divided. A treatment extended over too long a period of time is less effective. The whole amount given within one or a few days will tend to undesired accompanying effects and weaken the general resistance of the patient too much.

I would like to mention another assistant—use of the endothermic knife at operations. This is only a different method of cauterization but it has great advantages, and even when extensively used leaves only a small scar. Bulky tumors can be taken out with great ease and without much bleeding. While going through the tissue the heat of the needle will sterilize the tissue, seal the vessels and lympathics, and diminish the danger that parts of the growth may be carried to distant places in the body. Dan Mackenzie says, in speaking of surgical diathermy, it prevents the operator squeezing live cancer cells into the lympathic vessels draining these affected areas, prevents the sowing of the operation field with living cancer cells, and destroys the bacteria of sepsis in the tissue adjoining the field of operation.

Of the lesions involving the eye structures that of epithelioma of the eyelid and canthus is most frequent. It heals readily under treatment; equal to that of skin epithelioma. Epithelioma of the ocular conjunctiva is rare, and responds very well to radiation; the lesion will heal without scarring and, therefore, radiation is preferable to surgery.

I have seen 2 cases of epithelioma of the cornea treated by x-ray and radium application, and remain free from recurrence for more than 3 years. There is comparatively little danger of injuring the eye when doses are given carefully. The eyeball is not as radiosensitive as might be expected. Average doses may cause blepharitis, conjunctivitis or even keratitis, but only extremely high doses will result in necrosis of the orbit or the globe. Of the retrobulbar tumors, the lymphoma and lymphosarcomas show best results; however, if the initial external radiation should not result in prompt regression of the growth, the bulbus should be removed in order to gain more knowledge of the growth and permit better access to the growth.

In order to conclude the subject of usefulness of radiation in diseases of the eye, I might mention that x-ray and radium, as well as ultraviolet radiation are helpful in treating tuberculous lesions such as lupus and tuberculosis of the conjunctiva, iris or chorioid. A number of cures of trachoma and vernal catarrah have been reported; however, my experience with these cases has been very small. Nevi or hemangiomas in the region of the eye yield excellent results by radium or x-ray treatment.

Of malignancies in the intra-oral group, cancer of the lip is the most conspicuous, and the patients come relatively early for treatment. They may either be basal cell epitheliomas, or squamous cell or epidermoid carcinomas. The basal cell carcinomas originate on the skin and extend over the lip and, therefore, are not really a true lesion of the lip.

The epidermoids are of 2 types; the superficial papillary and the deep infiltrating. Their prognosis as well as their histology and clinical appearance are considerably different. The superficial epidermoid is very conspicuous, reaching over a larger area, but not extending into the deeper tissue in the early stage. Metastases are

very rare unless the disease has progressed into the deeper structures. This type as well as the basal cell epidermoid gives very good results from treatment with radiation. The type of squamous cell epidermoid has raised indurated edges with formation of sloughing in the middle. One can feel by palpation that the deeper structures are invaded. It disseminates much more readily and invades the cervical lymph nodes early.

There is a difference of opinion as to whether complete dissection of the neck should be done, not only in these cases, but also in all malignancies of the intra-oral group. First of all, the histologic aspect of the growth should be considered; papillary growth causes metastases only very late, though it may involve a large area of superficial tissue. There are many factors which speak against an early neck dissection as a regular procedure; the original lymph nodes perform a certain function, they are there to arrest progress of the disease; if taken out unnecessarily we remove a barrier against spread of the disease which the fibrosis produced by the dissection cannot substitute.

Cases without palpable nodes should be kept under observation. If nodes are present or appear later a complete unilateral section with the use of radium emanations buried throughout the wound should be done. Dissection of the opposite side may be performed if indicated. While this opinion is expressed by Quick, of New York, and Holmgren, of Sweden, Mackenzie of England performs a block dissection in every case of intra-oral cancer. No matter how early the case is, he believes that the lymph glands have only little power to arrest the spread of cancer.

Regaud reports cure of 60 out of 90 cases of cancer of the lip of from 1 to 5 years' duration. Quick reports 69 cases out of 202 free from the disease for 3 years. My own results have been such that of the 14 patients treated during the last 7 years, 8 are free from the disease, 2 are improved and 4 have died.

Before treating any malignancy in the oral cavity, a general mouth hygiene should be instituted. Bad teeth should be extracted, but care should be exercised in case of malignant involvement of the jaw. In this case they should only be extracted after the first course of treatments. The presence of local or general infection in the mouth will complicate the entire picture and darken the prognosis.

The difficulties are similar when treating cancer of the tongue; more than 70% are inoperable when brought for treatment. As the tongue is supplied with rich vascular and lymphatic systems, and moves almost constantly a growth becomes disseminated in the early stage. Many cases appear still operable as far as the primary lesion is concerned but have disseminated so widely that they are really inoperable. Today the early lesion is attacked by a wide excision with the diathermy knife. Best results have been shown by surgery alone in the early cases of carcinoma located on the tip of the tongue. Radium needles are then inserted in the field or emanation is employed. Seeds from 1 to 3 millicuries filtered with gold are evenly distributed in the tissue, 1 seed to 1 sq. cm. Such application spreads action of the radium over a period of 31 days with the strength of radium diminishing about 15% every day. Surface application can only be used in cases of leukoplakia and very mild basal cell carcinomas, and is of no use in infiltrating cancer. The patient will undergo a heavy reaction with considerable swelling and pain, but this cannot be avoided.

The employment of gold filtered seeds has considerably lessened the suffering that attended implanting the bare glass seeds.

As to results, Quick reports 101 cases operable and inoperable free after 2 to 3 years, out of 450 in total and he believes the net percentage in this group is about 22.4%. This will compare very favorably with the best surgical statistics in operable cases alone. While 35% of the cases treated at the Memorial Hospital were operable, 50% were inoperable and 15% just beyond operability. I have treated 13 cases that were inoperable; 9 patients died, 2 are much improved, 1 is free from the disease for more than a year; 1 has now returned with a recurrence after being free from the disease for more than 5 years.

While in malignant tumors of the tongue, the appearance of a sarcoma is rare, we do find some cases of sarcoma in malignancy of the tonsils. In spite of the early symptoms of difficulty in swallowing, a patient with malignancy of the tonsils comes comparatively late for treatment. In some cases valuable time is lost by various other treatments for tonsillary ulcer or anti-syphilitic treatment.

In lymphosarcoma or lymphogranuloma the lesion requires a less intensive treatment so that in some of them we get along with external x-ray radiation alone. The heavy radiation in carcinoma sometimes results in hemorrhages or even as a late result a necrosis of the jaw bone. Some cases with recurrent new growth still yield to x-ray radiation after they have been given intensive radium treatment so that at least a trial should be made in every case. The results are good in cases of lymphosarcoma and malignant granuloma.

Cancer of the jaw is usually due to chronic irritation or to poor fitting teeth plates, rough teeth or excessive smoking. Contrary to its frequency in causing lingual carcinoma, syphilis bears little relation to it. Unfortunately, these lesions are considered to be of an inflammatory character for a long period of time and thus valuable time is lost. There are 2 types of carcinoma of the jaw—papillary and infiltrating epidermoid, the latter being the more malignant type. It invades soft parts and bone very early and causes metastasis when it is still inconspicuous in appearances. The other type produces a more bulky tumor and grows slowly. It disseminates very late. To distinguish between the two types is necessary in order to adapt the treatment, therefore a section for miscropic examination is necessary.

A direct use of radium on the bone is prohibited by the resulting necrosis and formation of sequestrum. The lesion in the bone should therefore be widely exised. The soft parts then can be cauterized with endothermy and radium and x-rays freely applied. The proper way of treating seems to be, to give the patient first a thorough radiation treatment externally; this will prevent the growth from becoming larger and help to make the following surgical procedure safer and easier. If a large supply of radium is on hand, an additional amount of external radiation can be given in conjunction with the Roentgen treatment. If the case is too far advanced, only mild palliative treatment should be given and great relief can be expected even in far advanced cases. The neck in these cases always is treated with external Roentgen radiation.

Although sarcoma usually responds much more readily than carcinoma, the danger of dissemination is so great that the patient frequently dies of distant metastasis. Only wide excision by the electrothermy method and vigorous radiation treatment will offer the patient a chance of recovery.

What has been said with reference to treatment of the lower jaw holds true in tumors of the maxillary bone. The primary tumors are rare. More frequently we find that the growth originates from a paranasal sinus.

The patient appears with an indurated swelling over the prominence of the cheek and exophthalmus or there is a fungating growth projecting downward inside of the cheek. In most cases the lesions are masked by inflammatory processes covering the true nature of the case and the patients come to our attention in a state when the growth has already perforated through the bone. This mixed infection not only complicates diagnosis but adds to the difficulty of surgical and radiotherapeutic procedures.

Tumors originating from the salivary glands make up 1% of the total of all malignancies. According to Ewing there are 3 types: benign adenoma, malignant adenoma or carcinomas, and autochthonous mixed tumor. Schreiner of Buffalo, speaking of treatment of these cases, comes to the conclusion that where the tumor is favorably located it should be removed or enucleation of the gland should be performed leaving the sac. A thorough course of radiation should follow. Where the tumor is not favorably located on account of injury to the facial nerve or inaccessability to surgical procedure radiation by implantation with gold seeds together with x-ray is advisable, but in most cases it is impossible on account of the extension of the tumor to pay attention to the facial nerve. Recurrences should be treated with x-rays. The results are not very encouraging.

The many failures in treatment of the larnyx have given us most valuable lessons, not only in this particular disease but in the general use of radium and x-rays. Up to recently the massive doses of radium and x-rays over a short space of time have greatly interfered with the results. They have even frequently brought about a necrosis of the cartilage with its undesirable sequels. Intrinsic carcinoma should be operated upon. The statistics show 85% of good results. They may be still improved upon by postoperative radiation. Even cases with early involvement of the regional glands may be so treated after preoperative radiation.

Finzi and Harmer, of England, have recently described a conservative method with which they have treated 15 cases of primary cancer of the larnyx with such results that 6 patients are free from recurrence for a period of from 2 to 4½ years; 5 patients died after 1 to 2 years; and 2 patients remained in improved condition.

After a thorough preoperative radiation they cut a large window in the thyroid cartilage, still leaving a frame of cartilage for support, and thus gain access to the outer surface of the growth which is still covered by the pericondrium. It is most important that this pericondrium be not disturbed and that the tumor is left uninjured. They then use needles of 1 mgm. strength right next to the growth. By this way they obtain a direct influence on the growth and do not have to fear any necrosis. In case the growth has reached over the median line another window is cut in the opposite side after an inferior tracheotomy is performed. By this procedure they have repaired the function of the vocal cords to such an extent that in some cases it was impossible for others to determine the site of the lesion. As this method is still empiric it is impossible to estimate its value in comparison with surgical results. Other methods are to insert a tube with radium for a certain length of time in the larnyx or bury seeds in the growth. It might be tried in cases where the patient prefers a high risk to the permanent loss of the voice. In inoperable cases, after the disease has spread far beyond the larynx, the use of radiation therapy is advocated as it tends to arrest the disease for a period of time.

In the last few years surgery, by more daring methods, attacked certain types of cancer of the esophagus with better results, especially when the malignancy is located in the pharyngal portion.

In these cases we have to rely entirely upon radium and x-rays. The poor results are due to the fact that the esophagus is a very thin walled tube, with hardly any connective tissue. Although sometimes the patient consults the physician very early the malignancy has already broken through the wall and has involved the neighboring structures. The results with radium alone have been very disappointing. It healed the ulcer superficially and opened the stenosis by breaking down the tumor, but the cancer progressed in the deeper structure as the dose of radium diminished too rapidly with the distance. I have seen better results by giving x-rays alone, but I have not been able so far to obtain results lasting much longer than 2 years.

I expect better results by the combination method of x-rays and radium, inserting a small dose of radium very heavily filtered which will permit the radium to stay in the esophagus for a number of days and allow me to send enough radiation to the distant tissue without caustic effect to the nearby tissue. This comparatively slow treatment will also give the tissue a chance for reconstruction to fill in the ulcer with normal tissue. Great care must be exercised to place the radium tube in the proper position. It will not do to have the tube in the diverticulum alone above the stricture as it will not influence the growth very much. Sometimes it is difficult on account of the tumor to enter the stricture, in these cases a gastrostomy must be performed and a bougie must be inserted from the cardia upward and a silk thread introduced and pulled through to the mouth. With both ends of the thread tied together the radium can be inserted from the gastrostomy opening through the cardia and can be properly located in the lesion and later pulled out through the mouth and then again inserted whenever necessary.

Let me mention only briefly that there is a large field of usefulness for x-rays and radium in the treatment of diseases other than malignancies in your line of practice. First of all, treatments of tonsils might interest you. In cases which have been referred to me for treatment of the tonsils, I have seen good uniform results on hypertrophied tonsils. I have also had good results in infected tonsils but it is my standpoint that x-ray or radium treatment should only be taken when there is contraindication for surgical procedure. An x-ray treatment over the spleen preceding an operation by 4 hours will raise the coagulation point of bleeders considerably and make the operation a much safer procedure. Cases of nasal polyps which bleed

easily can also be influenced very favorable as a few cases I have been able to treat have shown. A great deal of good has been derived from x-ray treatments in acute and chronic inflammatory conditions of the eye, ear, nose and throat.

The treatment of cervical adenitis was really the first field of usefulness in the early days of x-ray therapy. I have seen very nice results in sinus catarrh with diathermy and x-rays. The reports on acute and chronic mastoiditis are also good. I do not want to say that with the treatment of these conditions we want to do away with operation, this would be most illogical, but, by giving a mastoid case which makes very slow progress in healing 1 or 2 x-ray treatments you will be surprised to see how nicely it will improve.

I might mention another good field and that is the treatment in parotic fistulas. These postoperative conditions are most disagreeable to both the patient and the physician. By giving the patient a careful dose over the gland we paralyze the gland and stop function for a few weeks, thus giving the fistula a chance to heal. After 3 or 4 weeks have elapsed and the fistula is healed the gland will again start functioning.

In conclusion I wish to again emphasize the fact that radiotherapy is still in the empiric stage. Our methods are yet far from perfect; so, that we have many failures is not to the discredit of the agent and should not discourage its use. Let us investigate and so develop our methods as to learn how we can profit best, by combining the surgical procedures with radiation. Let us estimate the value of radiation from the standpoint whether or not by adding it to the surgical procedure we can still improve on our results".

At the conclusion of the paper, Dr. May projected on the screen pictures of many patients taken before and after radiation. About 10 patients that were in the course of treatment were present so that the excellent and actual results obtained could be viewed by the audience.

Dr. Edgar A. Ill, who opened the discussion, said he felt that extensive surgery well outside of the growth held the only hope for success in malignancy of the head and neck. He suggested that the surgeon himself handle the radiation.

Drs. J. Thompson Stevens, H. B. Orton, Linn Emerson, R. Pomeranz, H. C. Barkhorn, Browne Morgan, Dennis O'Connor, Lee Hughes, and Lewis W. Brown took part in the discussion.

The Secretary presided in the absence of the chairman, and 35 members were present

---

Section of Medicine and Pediatrics Academy of Medicine of Northern New Jersey

Richard H. Staehle, M.D., Secretary

The one hundred and thirty-fourth monthly meeting of the Section on Medicine and Pediatrics was held at the Academy of Medicine on October 8, 1929. The meeting was called to order by Chairman Echikson at 9.15 p. m. Minutes of the previous meeting were approved as read.

The paper of the evening, entitled "The Toxic Colon", was read by Dr. Martin J. Synnot, of Montclair. The paper was a comprehensive and detailed treatise on the etiology, pathology, symptoms, methods of diagnosis and a detailed account of the methods of treatment, well illustrated by lantern slides. In the treatment, the speaker stressed the importance of diathermy, bimanual massage, colonic irrigations, acidophilous milk, avoidance of coarse uncooked foods, prescribing of exercise and outdoor sports, treatment of the mental state of the individual, and the treatment of constipation when present. He condemned the many needless operations now being performed on this class of patients because of incorrect diagnosis.

The paper was discussed by Drs. Edward Ill, Hagerty, Wherry and Staehle.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

Gloucester County physicians heard 2 interesting talks at the social meeting of the county medical society held September 26, 1929, at the Woodbury Country Club.

Dr. Andrew F. McBride, of Paterson, President of the New Jersey Medical Society, spoke on the objects and desires of the society. He stressed the present drive to eliminate disease, one of the outstanding of which is diphtheria. He urged the coöperation of boards of health and school authorities in reaching the goal in this aim.

"Hazards of Poisonous Foods", was the subject of an interesting talk by Dr. Ivor Griffith. Professor in the Philadelphia College of Pharmacy, and head chemist of the John B. Stetson Company. He declared that people had secured many advantages as the result of the application of science to determining the fitness of foods. Pure food and drug chemists are outstanding in their fields of endeavor, he declared.

Rev. Leon Chamberlin, Pastor of the M. E. Church, of Woodbury, also addressd the meeting and his remarks indicated that he had an unusual appreciation of the trials and tribulations of the general practitioner. His remarks were most interesting and entertaining. A group of songs was rendered by Miss Townsend and Mr. Ivor Davis, who both proved to be artists of merit.

Those present were: Dr. and Mrs. Stewart; Dr. and Mrs. Underwood; Dr. and Mrs. Ulmer; Dr. and Mrs. Diverty; Dr. and Mrs. Hunter; Dr. and Mrs. Hollinshed; Dr. and Mrs. Downs; Dr. and Mrs. Ashcraft; Dr. Livengood; Dr. and Mrs. Campbell; Dr. and Mrs. Pegau; Dr. and Mrs. Stout; Dr. Buzby; Dr. and Mrs. Wm. Pedrick. Guests—Dr. Andrew F. McBride, of Paterson; Dr. J. B. Morrison, of Newark; Dr. and Mrs. Mulford; Dr. Emma Richardson; Dr. Palm; Dr. O. R. Kline; Dr. Elizabeth Love; Dr. and Mrs. Tracy; Dr. and Mrs. James; Dr. and Mrs. Summerill; Rev. and Mrs. Chamberlin; Mrs. Reading; Dr. and Mrs. Ivor Griffith, of Philadelphia; Dr. A. C. Morgan; Mrs. Frank Winslow; Dr. and Mrs. Frederick Wandall; Miss Pauline Pitman; Miss Elizabeth Pitman; Dr. Dorothy M. Rogers.

HUDSON COUNTY

Harry J. Perlberg, M.D., Secretary

At the first meeting of the 1929-1930 session of the Hudson County Medical Society, on October 1, 1929, the speaker of the evening was Dr. Charles O. Fiertz, of New York City. The subject was "Newer Aspects of the Treatment of Neurosyphilis".

Dr. Fiertz used the term to embrace 2 types, the parenchymatous, e. g., paresis; and the interstitial type, which includes cerebral syphilis and tabes dorsalis. All forms of neurosyphilis respond to the newer forms of treatment except tabes, of which more will be said later. The

nonspecific treatment of general paresis is the final outcome of a long series of experimental attempts to cure the disease. Dr. Fiertz showed statistics indicating a remarkable similarity of success the world over; 33% of the paretics are restored to perfect health or health of a sufficient form to permit them to be self-supporting; 15 to 20% have definite arrest of progress of the disease, with some improvement; 35-40% remain at the same level as when treatment was started, getting neither better nor worse; 10-15% die, either during or soon after the treatment. The value of this form of treatment is more greatly appreciated when it is recalled that with the usual forms of treatment or with no treatment at all, all of the patients die within a period of 1 to 1½ years from the onset of the symptoms, there being only 4 to 5% remissions.

The contraindications usually given do not prohibit treatment if the patient is carefully watched and the treatment controlled. The one contraindication which exists, according to Dr. Pierce, is obesity. Most of the sudden deaths reported during treatment are probably due to collapse of cerebral circulation and are not cardiac. These number about 7%. The fever with the treatment often reaches 106° and occasionally 107°; but for only about 20 minutes during paroxyms.

The paper by Dr. Fiertz was well received, and there were numerous questions asked and comments made by society members. Those participating in the discussions were: Drs. Kraut, Shapiro, Markowitz, Waters, Rosencranz, Martzowka, and Weiss.

HUNTERDON COUNTY

Barclay S. Fuhrmann, M.D., Reporter

The annual meeting of the Hunterdon County Medical Society was held October 22, 1929, at Flemington. In the absence of Dr. T. B. Fulper, President, Dr. A. H. Coleman occupied the chair.

There was no special program presented but a spirited discussion of various subjects of interest to the society took place.

As this was the annual meeting, nominations were made for the various offices and resulted in the following officers being elected: President, A. Louis Gramsch; First Vice-President, C. G. Boyer; Second Vice-President, I. Topkins; Treasurer, E. W. Closson; Secretary and Reporter, B. S. Fuhrmann.

As the committee to revise the by-laws made no report, it was necessary to pass a motion authorizing the committee to make the revised by-laws conform to the rules and regulations of the state society. The following delegates were then elected: For 3 years, B. S. Fuhrmann; for 2 years, A. H. Coleman; for 1 year, L. C. Williams. Alternates: G. B. Tompkins, I. Topkins and L. A. Hamilton. For member of Nominating Committee, A. H. Coleman; Alternate, B. S. Fuhrmann.

On motion seconded and carried, the Secretary was authorized to get suggestions and bids for a suitable tablet to be erected at the New Jersey State Sanatorium at Glen Gardner in memory of Dr. O. H. Sproul.

MERCER COUNTY

A. Dunbar Hutchinson, M.D., Reporter

The Mercer County Society met in the Carteret Club, October 9, President Seely in the chair.

The Program Committee had arranged for a general discussion of the revision of the By-Laws, following recommendations of the Committee on Revision; but Dr. Scammell reported that owing to pressure of business, and the absence of the Secretary, the committee had been unable to formulate recommendations and that a complete report will be presented at the meeting November 13, and final action will be taken at the December meeting.

The annual banquet will be held on November 21, at which time the Woman's Auxiliary will also join in a conference and entertainment in a centrally located building.

The applications of Drs. H. J. Schroeder, J. R. Pierson and A. J. Sekerak were read and referred to the Membership Committee.

MIDDLESEX COUNTY

William C. Wilentz, M.D., Reporter

The regular monthly meeting of the Middlesex County Medical Society was held October 16, at 4 p. m., at the Perth Amboy City Hospital, with Dr. Spencer presiding. The minutes of the last meeting were read and accepted. Two new members, Drs. McKinstry, of Jamesburg, and Scema, of New Brunswick, were introduced.

A communication from the State Venereal Bureau, relative to the holding of demonstration clinics, was read and referred to the Program Committee.

An application for admission to the society was received from Dr. A. Klein, of Perth Amboy, and was referred to the Membership Committee.

Dr. Spencer gave an interesting account of the use of "Pituitrin in Incomplete Abortions".

Dr. Walker was designated by the President to investigate the rumor of a lecture delivered at Rutgers College by one of the faculty condemning the use of vaccines.

Dr. Silk, Chairman of the County Tuberculosis Society, reported that there are 700 positive cases in the county and 180 patients from this county in the sanatoriums, and he discussed the problem of hospitalization.

Dr. London reported on the Kiddie Keep Well Camp activities and urged their support.

Medical Section of Rutgers Club

John H. Rowland, M.D., Secretary

The first regular autumnal meeting of the Medical Section of Rutgers Club was held Friday evening, October 11, 1929, at the Woodrow Wilson Hotel, at 9 p. m. There being no business to transact, the speaker of the evening was introduced promptly.

Dr. William H. Cameron gave a very interesting talk on the present status of radium in therapeutics, describing conditions where radium alone was of value, conditions where radium was of no value, and of the use of radium in combination with surgical procedure. The talk was very much enjoyed by those present, who numbered about 30.

After the meeting, the gathering enjoyed refreshments in the main dining room, as guests of Drs. Scott, Sherman, Sullivan and Voorhees.

PASSAIC COUNTY

David H. Mendelsohn, M.D., Reporter

The regular meeting of the Passaic County Medical Society was held at the Health Center, October 10, at 9 p. m., Dr. William Spickers pre-

siding. The minutes of the September meeting were approved as read.

The Board of Censors reported favorably upon the applications of the following: Harry G. Rinzler, John J. Szymanski, Theodore Morici, George W. Dren, Louis Lipton, Adolph Kroll, all of Passaic; and C. J. Luksteid, George L. Becker and Edward F. Leonard, all of Paterson. A motion was made and seconded that action on the application of Dr. Dren be deferred. The other applicants were unanimously elected. Applications for membership were received from the following doctors: Brooks, Weinert, Skvola, Van Haintinger, David B. Levine, A. Gordon. These applications were referred to the Board of Censors.

Dr. Spickers introduced the President of the State Medical Society, Dr. Andrew F. McBride, who spoke briefly upon the importance of the work of the Welfare Committee. Dr. McBride thanked the society for its support.

Dr. Spickers gave the Annual Address, in which he thanked the society for its support. He especially thanked Dr. Tuers for his interest. He also urged that the Passaic Practitioner's Club be invited to become a branch of the county society. The Woman's Auxiliary was complimented upon its work in supporting us at Trenton while legislation was pending.

Dr. Shapiro, as Chairman of the Nominating Committee, presented the following names as the choice of the committee: President, James P. Morrill; First Vice-President, John H. Carlisle; Second Vice-President, Jacob Roemer; Secretary, Frank W. Ash; Treasurer, S. M. Giambra; Board of Censors, W. Spickers; State Nominating Committee, Henry H. Lucas. Delegates to the State Society for 3 years: John T. Gillson, Francis H. Todd, Fred F. C. Demarest and Joseph V. Bergin; for 2 years, J. C. McCoy, H. H. Lucas, John S. Yates, G. Edward Tuers and William Spickers; for 1 year, T. A. Clay, John N. Ryan, Jacob Roemer, Henry Cogan and H. H. Brevoort; Alternates, J. H. Carlisle, H. G. Reyonlds, A. A. Butterfield, R N. MacGuffie, L. V. Becker, W. P. Thorn, N. M. Dingman, W. A. Dwyer, Richard McDonald, C. J. Murn, David H. Mendelsohn, Harry S. Willard, A. M. Schultz and Alan W. MacGregor.

No other nominations being made from the floor, the above named candidates were unanimously elected.

Dr. Snedecor, of the Bergen County Medical Society, discussed the subject of the county society advertising in local newspapers. He thought much good would be done by educating the public to have periodic health examinations; by giving radio health talks; by the society's taking part in civic affairs as a unit; and by attending the Board of Health meetings.

Mrs. Underhill, of the Evening News, then recommended that the society place advertisements regularly on a special page. She believed that the cost would be about $60 per month. It was moved that the matter of advertising be referred to Executive Council. A vote of thanks was given Mrs. Underhill.

Dr. Charles Mitchell moved that the dues for the coming year be placed at $20. This was carried.

A revision of the by-laws to conform with the revision made by the State Society was read by Dr. Mitchell. A motion was adopted to have these revisions sent to members.

SALEM COUNTY

William H. James, M.D., Reporter

The annual meeting of the Salem County Medical Society was held at the Memorial Hospital, at 2 p. m., on the afternoon of October 9.

Drs. Hummel, Green, and Davis were appointed a committee on the revision of constitution and by-laws, to report at the next meeting in February.

The society had the pleasure of having, as Delegates from Gloucester County, Dr. James Hunter, Jr., of Westville and Dr. S. F. Ashcraft, of Mullica Hill, who gave very timely talks before the society.

Dr. Lee C. Hummel, formerly of Cooper Hospital, Camden, was elected a member of the society.

The dues to the county society have been raised from $20 to $25 per member to take care of the increase from $10 to $15 due the state society.

The following is a list of newly elected officers: President, L. H. Hummel; Vice-President, E. L. Perry; Secretary, David W. Green; Treasurer, David W. Green; Reporter, W. H. James; Censors, John M. Summerill, William H. James and Charles L. Fleming. Delegates to the state society: W. H. James, 3 years; R. M. A. Davis, 2 years; D. W. Green, 1 year. Alternate Delegates to the state society: J. M. Summerill for W. H. James; W. L. Ewen for R. M. A. Davis; and C. L. Fleming for D. W. Green. Member of Nominating Committee of the state society, R. M. A. Davis; Delegates to Gloucester County, W. H. James, J. M. Summerill and F. H. Church; Delegates to Camden County, L. H. Hummel and C. L. Fleming; Delegates to Cumberland County, R. M. A. Davis, D. W. Green and L. H. Hummel.

SOMERSET COUNTY

Lancelot Ely, M.D., Reporter

The regular meeting of the Somerset County Medical Society was held at the Raritan Valley Country Club, Somerville, on Thursday, October 10, with a large attendance. Usual routine business was transacted. It being the annual meeting, election of officers and delegates resulted as follows: President, A. A. Lawton; Vice-President, E. G. Brittain; Secretary, Benjamin Borow; Treasurer, R. F. Hegeman; Reporter, J. H. Cooper; Member of Board of Censors, A. L. Stillwell; Delegates to State Society, A. L. Stillwell, (Alternate, J. Meigh), Dan S. Renner (Alternate, R. F. Hegeman), and George Mack (Alternate, J. H. Cooper); State Nominating Committee, A. L. Stillwell.

After adjournment, the annual dinner was enjoyed, the members of the Woman's Auxiliary being guests of the Medical Society. Dr. Kay, retiring president, acted as toastmaster, and introduced Mrs. James Hunter, Jr., who is President of the Woman's Auxiliary to the State Medical Society. Mrs. Hunter gave an informal talk on plans for work. This was followed by several short talks from members of the society, including the new president, Dr. Lawton.

UNION COUNTY

Russell A. Shirrefs, M.D., Reporter.

The annual meeting of the society was held at the Elizabeth General Hospital on the evening of October 9, and was largely attended. Dr.

Continued on advertising page XXXI

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Andrew F. McBride.....Paterson
First Vice-President, George N. J. Sommer.....Trenton
Second Vice-President, John F. Hagerty.....Newark
Third Vice-President, Paul M. Mecray.....Camden
Corresponding Sec., William J. Carrington.....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Lucius F. Donohoe, *Chairman*.....Bayonne
James Hunter, Jr., *Secretary*.....Westville
Norton L. Wilson.....Elizabeth
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Paul M. Mecray.....Camden
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires,	1932	George H. Lathrope, Newark
Second District	" "	1931	B. S. Pollak, Secaucus
Third District	" "	1930	Martin W. Reddan, Trenton
Fourth District	" "	1929	George T. Tracy, Beverly
Fifth District	" "	1933	J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

Ralph K. Hollinshed, Westville	Term expires		1930
Lancelot Ely, Somerville	"	"	1931
Henry C. Barkhorn, Newark	"	"	1932

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City	Term expires		1932
J. Finley Bell, Englewood	"	"	1932
Thomas B. Lee, Camden	"	"	1930
Henry Spence, Jersey City	"	"	1930
H. Garrett Miller, Millville	"	"	1931
Harvey S. Brown, Freehold	"	"	1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty	Term expires		1931
B. S. Pollak	"	"	1931
W. Blair Stewart	"	"	1930
E. R. Mulford	"	"	1931

Alternate Delegates

George H. Sexsmith	Term expires		1931
Philip Marvel	"	"	1930
S. B. English	"	"	1930
C. B. Smith	"	"	1931

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark	Term expires		1930
Edward J. Ill, Newark	"	"	1931
J. Bennett Morrison, Newark			Ex-officio
Andrew F. McBride			Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*	Term expires		1933
Paul M. Mecray	"	"	1934
John Nevin	"	"	1931
B. S. Pollak	"	"	1930
H. Garrett Miller	"	"	1931
Thomas W. Harvey	"	"	1932
Elias J. Marsh, *Treasurer*			Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton	Term expires		1931
William G. Schauffler, Princeton	"	"	1932
William D. Olmstead, Atlantic City	"	"	1930
Andrew F. McBride, Paterson			Ex-officio
J. Bennett Morrison, Newark			Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Folsman.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield
Frank R. Haussling.....Newark

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
C. L. Ulmer.....Gibbstown
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
George F. Dandois.....Wildwood
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
George B. Emory.....Morristown
James S. Green.....Elizabeth
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
Frank G. McCormack.....Englewood
B. C. McMahon.....Morristown
James P. Morrill.....Paterson
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
C. H. Schlichter.....Elizabeth
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark

GASTRON

The Entire Soluble Constituents of the fresh gastric mucosa, including the pyloric

The amino acids, colloidal proteins, known activated enzymes, associated nitrogenous extractives, organic and inorganic cell principles—these are all contained in Gastron.

GASTRON is an aqueous-acid-glycerin extract, 0.25% HCl.

It is significant of the degree in which Gastron represents a gastric-gland concentrate that 1 c.c. is capable of converting 200 grams of coagulated egg albumen under the official test; the high protein content is shown by the copious precipitate with strong alcohol, ammonium sulphate, etc.

GASTRON, the true stomach-gland extract, gland tissue juice of constantly increasing repute in symptoms and disturbances with attribution of gastric deficiency.

GASTRON is devoid of any trace of gland origin; it is agreeable and stomachic.

Makers of original products suggested by the progress of science in medicine.

Fairchild Bros. & Foster
New York

MOUNTAIN VALLEY WATER *from* HOT SPRINGS *Arkansas*

The Doctor's Preference for a Non-Irritating Diuretic

Mildly Alkaline -:- Natural -:- Pleasant Tasting

Mountain Valley can be consumed in quantity and relished. It is easily assimilated and a palatable agent for flushing all four of the emunctories.

Newark, N. J.
92 Central Ave.
MARket 8890

Mountain Valley Water Company
Distributing Branches in all Principal Cities

New York, N. Y.
142 E. 25th St.
GRAmercy 1666

THE JOURNAL

OF THE

Medical Society of New Jersey

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COMMITTEE ON PUBLICATION
OFFICE OF PUBLICATION, 14 SO. DAY STREET, ORANGE, N. J.

Entered as second-class matter, Sept. 5, 1906, at the post office at Orange, New Jersey, under Act of March 3, 1879
Acceptance for mailing at special rate of postage provided for in Sec. 1103, Act of Oct. 3, 1917, authorized July 29, 1918

Vol. XXVI., No. 12. Orange, N. J., December, 1929 Subscription, $3.00 Per Year Single Copies, 30 Cents

N. Y. ACAD. OF MEDICINE

CONTENTS

ORIGINAL ARTICLES— Page

Angina Pectoris—Dr. Harvey M. Ewing .. 805

The Problem and Importance of Weight in Relation to General Health—Dr. Sidney R. Miller 808

Hemochromatosis (Bronzed Diabetes)—Report of Case—Drs. Michael Vinciguerra and A. R. Casilli 817

The Relation of Mental Hygiene Clinics to General Hospitals—Dr. Henry A. Cotton 820

ORIGINAL ARTICLES— Page

The Place of a Mental Hygiene Clinic for Children in the County—Dr. J. S. Plant 823

Congenital Syphilis—Dr. Julius Heilbrunn 829

Phacoërisis—Dr. Isaac Hartshorne .. 834

The Simple Operation for Extraction of Cataract—Dr. Elias J. Marsh 839

Combined Extraction—Dr. Lee W. H[illegible] 841

Preliminary Iridectomy—Dr. Charles [illegible] Schlichter 844

Continued on page VI.

The foundation of Calcreose is creosote—obtained from the wood of selected trees.

"I think that I shall never see . . . A poem lovely as a tree . . . Poems were made by fools like me . . . But only God can make a tree." —*Joyce Kilmer*

Compound Syrup of Calcreose

Available for the lesser ailments of the respiratory tract . . . a tasty, effective cough syrup that does not nauseate . . . each fluid ounce representing Calcreose Solution, 160 minims; Alcohol, 24 minims; Chloroform, approximately 3 minims; Wild Cherry Bark, 20 grains; Peppermint, Aromatics and Syrup q. s.

Tablets Calcreose four grains

Each Tablet Calcreose 4 grains, contains 2 grains pure creosote combined with hydrated calcium oxide. The full expectorant action of creosote is provided in a form which patients will tolerate.

THE MALTBIE CHEMICAL CO.
Newark, New Jersey

MALTBIE
Calcreose

Nine out of ten mothers can give their babies the breast. What can the physician tell these mothers who want to wean their babies before they nurse them?

Types of Mothers and Their Infant-Feeding Problems

1. *The Business-Going Mother*

"Doctor, I will have to give up nursing my baby. Our expenses have been very heavy lately and I must go back to business. My position is open for me provided I go back next week."

"Of course, you know, Mrs. Rush, that breast milk is best for your baby. In every way, it is far ahead of the best formula. It is free from bacteria and dirt, it never sours, it is always correct in temperature, and quicker as well as cheaper than bottles. I haven't much respect for the mother who won't nurse her baby. Your case is perhaps more excusable, for at least you have nursed your baby up to the point where the economic shoe is pinching pretty tight."

Doctor, in situations like this, where extenuating circumstances make artificial feeding necessary, we hope you will consider Mead's Dextri-Maltose modification of cow's milk as the next-best-to-mother's-milk infant food. We hope you will be influenced in its choice, not only because of its long clinical background but because of the ethical character of its makers.

MEAD JOHNSON & CO. Evansville, Ind., U. S. A.—*the strictly ethical house*

Journal of The Medical Society of New Jersey

Published on the First Day of Every Month

Under the Direction of the Committee on Publication

Vol. XXVI., No. 12 ORANGE, N. J., DECEMBER, 1929

Subscription, $3.00 per Year
Single Copies, 30 Cents

ANGINA PECTORIS

Harvey M. Ewing, M.D.,
Attending Physician, Mountainside Hospital,
Montclair, N. J.

The diagnosis of angina pectoris has been obscured and made difficult by unnecessarily complicated classifications. In discussing what seems to be a definite syndrome I shall confine my remarks largely to what one can learn by the simple method of talking to the patient and of examining him with the aid of the ordinary equipment that every doctor has at hand and I shall say very little about laboratory data, although we should not want to be deprived of the help of the electrocardiograph, the x-ray and other laboratory methods of study. I do not wish to make any claim to originality in these observations.

Forget the classifications of angina pectoris that you have read in books; they are confusing. Most classifications of angina pectoris include a group called pseudo-angina, which comprises some cases of true angina pectoris and many cases in which various types of precordial pain occur but which have not the serious significance of true angina pectoris. Patients with the very mildest sort of distress that could easily be called pseudo-angina will die suddenly. The false sense of security resulting from such a diagnosis is apt to lead to a neglect of treatment in the cases of true angina pectoris that is detrimental to the patient's best interests. A patient either has angina pectoris or he does not have angina pectoris and the term should be limited to a definite group of cases. Forget the agonizing precordial pain radiating to the left shoulder and arm and the fear of imminent death. This is not a true summary of the picture of angina pectoris as I see it but is rather more often associated with coronary occlusion.

The best of the present classifications of angina pectoris divides it into 2 groups: (1) Angina pectoris of effort. (2) Angina pectoris of coronary occlusion. My feeling is that the second group should not be known as angina pectoris at all but should be diagnosed simply as coronary occlusion. This leaves only 1 group of cases in the classification and makes the subject as simple as it can be made until some agreement is reached as to the underlying cause of the symptom complex of angina pectoris of effort. It seems the term angina pectoris could well be limited to this group. Angina pectoris is not a good term since it simply describes a symptom, but it has the standing that usage gives a term.

The term angina pectoris of effort does not accurately describe this syndrome for there are cases that, I feel, belong in this group in which effort plays no part in the production of symptoms. I believe that the mechanism in such cases is fundamentally the same. Angina pectoris in the limited sense, in which I propose to use it, seems to be, for the most part, a disease of the middle and upper classes of people. It is unusual in my clinic. At the present time there are only 2 active cases in the clinic and they are both cases of luetic aortitis. We rarely have a case in the wards of the Mountainside Hospital. It would seem,

however, that a hospital having a large proportion of old patients, as in municipal hospitals, in which cardiovascular lesions of the senescent type would be frequent, might have a greater number of cases of angina pectoris

The greatest number of cases occurs between the ages of 50 and 60. It is not at all infrequent in the forties and some cases have been reported in persons under 30 years of age. It is predominantly a disease of men. It is pretty certainly on the increase.

The most important item in arriving at the diagnosis of angina pectoris is the history. The chief complaint is of a sensation that may range all the way from slight pressure or fulness or constriction to a severe squeezing pain. In most of my patients the sensation is not agonizing and in a large proportion of them it is not so much an actual pain as a sense of constriction, squeezing, pressure or weight, and this peculiar character of the sensation is, to me, one of the most characteristic features of the syndrome. Even when the sensation is not located in the chest but is felt in the wrists or lower jaw, it still gives the patient this characteristic impression. It is unimportant in the diagnosis as to whether or not the sensation becomes actually painful.

This sensation is located most often under the sternum and I do not believe that it makes any difference whether it radiates or remains localized. The milder manifestations are just as serious as the more severe ones. A very significant characteristic present in most cases is that the discomfort, even though not severe and not painful, compels the patient to stop if he is walking or doing other physical exertion. He is not always able to explain why a sensation that is not painful and not severe compels him to stop, but it does. This is not universally true but is a frequently occurring feature.

In most cases the sensation comes on as a result of some physical exertion or mental strain. Some patients have distress several times in walking one or two blocks, others get it only on severe exertion, such as heavy lifting, climbing steep hills or hurrying for a train. Walking against a cold wind causes it in many patients who are capable of considerable exertion under ordinary conditions. In a goodly number of patients it comes on only on exertion after a meal and most commonly after breakfast. Walking to the train immediately after breakfast is a favorite exciting cause for an attack.

There is a peculiarity about the symptoms in a number of cases that influences me somewhat in arriving at my conception of the underlying cause of the distress, and that is, that if they will begin a given piece of work gradually they can frequently avoid the distress and can go on and do much more work than would on other occasions cause distress. If the business man will have his breakfast quietly, rest a short time afterward, and take plenty of time to walk to the train, he will avoid the distress at that period and during the rest of the day be able to do relatively hard work without distress. The distress frequently feels to the patient like indigestion, and he feels that if he could eructate gas the substernal distress would be relieved. Sometimes they do eructate gas with or without relief and at other times they cannot do so.

Typical patients are usually well-developed and frequently healthy looking individuals although in the more severe cases one frequently finds a man who has lost weight and who has the peculiar pallor that is seen in advanced arterial disease.

To sum up: The typical case involves a middle aged man; frequently a healthy looking man who complains of substernal distress or pain, which he describes as a weight pressure, or squeezing, or aching, which actually is brought on by physical exertion of less severity than he should be and has been capable of doing, or on mental strain. The distress is relieved in from a few seconds to a few minutes by discontinuing the exertion which caused it; when the patient again feels quite normal. *Such a history makes the diagnosis.* These patients usually have worked hard all their lives and have worried much. They have taken life very seriously and have played little or not at all. Some have taken up golf late in life, but if you have played with them or seen them on the links you will have noted that they do not *play golf*—they make it a

strenuous piece of business—they are incapable of playing. Focal infection probably plays a part in producing the underlying pathology. Heredity is probably also a factor. A large proportion of these people has a family history of arteriosclerosis, apoplexy, angina pectoris, high blood pressure or some circulatory disorder of the senescent type.

On physical examination one finds very little, and nothing that is characteristic. The heart frequently is a little enlarged to the left, as determined by percussion. The rhythm and rate are usually normal. There may be a systolic murmur either at the apex, or at the aortic area, or no mumur may be audible. There sometimes are a very few râles at the base of the lung on one side. There is rarely any edema of the extremities. The blood pressure is most often within normal limits. The radial arteries are frequently moderately thickened as you palpate them and the retinal arteries frequently show a moderate or slight sclerosis.

This is about what you find in a large number of middle aged men without angina pectoris. On the other hand there are persons with definite and obvious lesions of the heart who also have this syndrome. The electrocardiogram frequently furnishes confirmatory evidence and I think that the radiogram has been of considerable help to me in these cases. Dr. Erwin Reissman and I have been studying a series of these cases by x-ray examination and they have been very interesting although we have not yet a sufficient number to justify any definite conclusions.

What is the cause of this syndrome and what is the prognosis? The prognosis is uncertain and I do not yet know how to tell what any individual will do. The mildest cases may result in the patient dropping dead within a few days after coming under observation; others, with even fairly severe attacks, may live for a number of years and carry on active business. One elderly gentleman, who, I told his family could not live for over 3 years and probably much less has lived almost 4 years and has a history going back possibly 5 years before coming under my observation. He is carrying on a successful business and looks younger than he did 4 years ago. He had marked electrocardiographic changes. A dentist who had only a very mild degree of substernal discomfort and whom I could not persuade to take the condition seriously, dropped dead within a month of the time I first saw him. John Hunter lived 20 years after his initial attack. Many die suddenly of coronary occlusion. They may also gradually slip into heart failure and die as a result of that condition. They may die of cerebral apoplexy or any of the ordinary causes of death in a senescent individual. However, I believe that one should hold out to these individuals the hope that they may be able to return to a fair degree of activity and may live an indefinite time. This hope is justified by experience.

The cause of the distress or pain in angina pectoris has been the subject of much discussion. It is probably sufficient to say that I cannot accept the theory of coronary artery spasm nor Albutt's explanation based solely on aortic disease. I believe that a temporary, relatively insufficient blood supply to the heart muscle, due to inelastic coronary arteries which are unable to quickly dilate and increase the blood supply to meet increase in cardiac activity, is the best explanation of the distress. This is essentially MacKenzie's idea although he included in the group of angina pectoris a hetregeneous lot of heart pains and did not limit it to a definite syndrome, as I believe should be done.

Treatment

Rest seems to me to be the logical foundation of treatment, for by rest the undernourished, over-worked heart muscle is given a chance to recuperate. All of these patients will have discovered for themselves that rest relieves the distress. I feel that in most cases the patient should begin treatment by a rest in bed of from 4 to 8 weeks. After this preliminary rest, the patient should get about and increase his exercise gradually. Some are able to return to nearly their normal capacity for work and others find a level of activity lower than their normal beyond which they cannot

go without a return of symptoms. They should of course be kept below this level.

After the preliminary rest, and for patients who cannot take the preliminary rest, it is a good plan to have them take breakfast in bed, get up and get to work slowly, rest for an hour after lunch and again for 15-30 minutes before dinner in the evening. They should spend at least 10 hours a night in bed and sometimes I have them also spend half a day a week in bed. They should avoid situations where excitement may occur. Most patients should have their condition explained to them, avoiding the term angina pectoris, and be told why and how the treatment works. They will coöperate well as a rule.

You cannot expect results in many cases for from 6 months to a year or more. Osler mentions 1 case that recovered after 2 years of paroxysms. I have a man under observation at the present time whom I have treated for over a year and who is still showing improvement both clinically and in his electrocardiogram. He may have an entire return to normal capacity for work.

Diet should be a well balanced one and as full as they are able to take care of, for I feel that most of these patients need building up. Indigestion and constipation should be carefully avoided for reflex excitation through the vagus nerve may be responsible for initiating attacks. Foci of infection should be treated when possible without too much disturbance of the patient. Dead teeth should be removed, although I do not think it wise to extract more than 1 or 2 at a time. I am not inclined to advocate removal of tonsils in the early stages of treatment.

As to drugs, there are several that are of use: A tablet of nitroglycerin, 1/100 gr., held under the tongue until dissolved will give quick relief from an attack as a rule. I think this and related drugs should be used for relief of individual attacks and not be given continuously. Quinin given in doses of 2 or 3 gr. 3 times a day will lessen the tendency to attacks in a fair number of cases. Theobromin and various members of the theobromin and caffein group of drugs will relieve some cases when given continuously for an indefinite period of time. Theophylline-aëtheylendiamin (metaphyllin) has given me the best results. It increases the coronary blood flow and so increases the nutrition of the heart muscle. It is best given in doses of 3 gr. 3 times a day. Some patients have had relief from the attacks after the first dose and in most cases some amelioration of symptoms has occurred. This effect will vary from complete relief to a lessening of the severity and frequency of paroxysms.

The mild sedatives should be used routinely; 5 gr. chloral hydrate and 10 gr. sodium bromide is a very useful combination and should be given 3 or 4 times a day, especially at the beginning of treatment. Small doses of one of the barbituric acid compounds will often give good results also, and in ambulatory patients may be given in a capsule with the metaphyllin or quinin. Lessening of nervous apprehension and irritability by these sedatives is very important, and in itself lessens the tendency to attacks of distress.

I have attempted to describe a syndrome that is clear cut and characteristic of one subgroup of cases in the larger group that complain of various types of precordial pain or distress. Another definite group is that of coronary occlusion. And in addition to these 2 well defined groups there is a mixed group of minor pains and aches that for the most part are not of serious importance.

THE PROBLEM AND IMPORTANCE OF WEIGHT, IN RELATION TO GENERAL HEALTH

Sydney R. Miller, M.D.,
Baltimore, Maryland

Associate Professor Medicine, John Hopkins University,

(Read before the Academy of Medicine of Northern New Jersey, Newark, March 21, 1929.)

It is, I think, quite needless to say how much I personally appreciate the invitation to address you this evening. It has always been to me both a pleasure and a privilege to meet with the busy physicians of other communi-

ties, and to exchange with them ideas on subjects of mutual professional interest and their relation to our fundamental problem, which is the preservation of health and the prevention of illness.

There is in this instance a particular reason why I am especially glad to be with you, and it is this: I was born and raised in this city. My school-boy days at the Newark Academy I recall with vivid and pleasant memory. Without question, my earliest and some of my most enduring inspirations with reference to the practice of medicine came to me through contact with one of the ablest physicians in this community in his time, one whom doubtless many of you remember and revere no less than I do—the late Dr. William S. Disbrow. He was for years our beloved family physician and adviser in many problems other than those just connected with illness. For some reason, I know not what, he had it fixed in his mind from an early date that I was to pursue a medical career, and he lost few opportunities to give me an insight into just what the profession meant and the desirability of the broadest type of intellectual vision, so necessary in a successful professional career. He was wont to loan me books to stimulate my interest in historic matters pertaining to medicine; and as though it were but yesterday. I can remember the many Sunday afternoons which I spent with him in his workshop, or "museum", as he would call it, which was, in those days, in back of Linnette's drug store, at the corner of Sherman and Avon Avenues. Here it was that I got my first insight into the significance of pathologic specimens; here it was that I first had revealed to me microscopic secrets; and in that rather dingy, dirty room, replete with medical, geologic and botanic specimens, I probably absorbed an enthusiasm for my profession which has been permanent. It is, therefore, to me a great privilege and honor to bear testimony to my sustained devotion to one of the former leaders here in our profession, as well as to come back with a message which perhaps may meet even with his silent approval.

In response to the invitation to address you, I submitted to your President 3 titles, and the one for this evening's discussion was selected by him. It is my understanding that these meetings of the New Jersey Academy of Medicine are frequently, or perhaps regularly, open to the profession and to laymen alike; and this is probably one reason for his selection of a subject which at first glance is rather an over-worked one, a topic of more or less every-day discussion, and yet unquestionably one of increasing interest and value in its relation to public health and a wide variety of disease states, possibly capable of prevention. We are living in an age in which newspapers, magazines and billboards are deluged with advertisements of nostrums, foods, and whatnot of varying efficiency and danger, guaranteed to build up, or more particularly tear down, the human body in terms of weight, appealing especially to and greedily absorbed by women, young and old, in the modern craze for thinness, against which Nature herself inevitably revolts sooner or later. This alone is excuse enough for a frank discussion of this evening's topic.

This is an era of progressive preventive medicine. With an ever-increasing correlation of knowledge gleaned from all of the allied sciences, physicians who think are, or should be, striving not only to keep the people of the families they care for free from disease, but also to guide their lives so as to assure to them an abounding vitality. Through an increasing knowledge of the importance of hereditary and environmental factors, doctors are or should be trying to see that children are better born, that they develop more perfectly, and grow to maturity with a healthy mind as well as body, with physical beauty, intellectual power, emotional stability, strength of will, and personal charm. In a word, the broadest vision of preventive medicine aims for abounding health, higher efficiency, fuller happiness, and hence a greater and longer enjoyment of life.

Because more intelligent men and women are coming to realize that good looks, success, and happiness are mainly dependent upon good health, they are turning to us as physicians for all of the information possible as to how best to live in a healthy fashion. It is

probably because we as physicians fail to fulfill some of our missionary duties in the spread of health doctrines, that so much humbuggery exists and today does no small amount of harm in the realm of health, particularly in its relation to so-called normal weight.

The problem and importance of weight, in relation to general health, are both easy and difficult subjects to discuss. The easiness of it will be the best possible excuse for bringing to your minds a number of facts which are so well known that their repetition will perhaps bore you; but I am not convinced from my personal observations that certain of the fundamentals are borne in mind and acted upon with as much consistent zeal as is wise and necessary. The difficulty in handling this topic lies in the fact that it can be approached from so many different angles; that it involves so broad a comprehension of normal physiology, as well as deviations therefrom; an understanding of the as yet far from clarified subject of endocrinology; and, not least of all, recognition of a great many psychologic problems which bear not merely on the behavior of individuals but their habits as they relate to health in general. Your indulgence is, therefore, asked in listening to a review of some of the fundamental principles concerning body weight, and your remembrance of the fact that many phases of this subject cannot possibly be dealt with adequately in the time at our disposal.

The Criteria of Normal Health

The criteria of normal health at any given age or period of life could not possibly be defined in a few words or a single sentence. In fact, I often wonder how many of us, physicians or laymen, have a clear concept of what health really means. By derivation, the word *health* means the condition of being safe and sound—in the minds of most people, I suspect, health is regarded mainly as freedom from disease. Such a conception falls far short and raises but a standard of mediocrity. Health in a broad and stimulating sense is: "A quality of life that renders the individual fit to live most and serve best." Such a concept refuses to consider as healthy the individual who employs a wonderful physical body for mainly selfish and socially undesirable ends. It asks that life be thought of as a whole—as a standard of inspiration and increasing achievement. To achieve health in this sense costs something that must be taken from work, from instinctive pleasures or from indulgence in unwholesome habits. There is no way to beat the game of life.

In a general way, the characteristics of positive health by which humans should learn to measure themselves, and for which they should consistently work, are these: Growth to an adequate size without interruption; bones and teeth of proper form and structure; muscles that are firm and elastic, and padded with normal amounts of subcutaneous fat; an abundance of good blood; a skin that is smooth, moist and clear; nerves that are responsive and enduring; good resistance to infections of all kinds; a reasonable freedom from the common run of vague aches and pains; harmonious functioning of the various organs of the body, as manifested by good digestion, good elimination, good vigor and vitality or endurance, good spirits, and good sleep; a high degree of potential fertility, and the consequent ability to produce children fitted to live long and function efficiently; and last but not least, a prolonged life without senility. These perhaps do not represent *all* of the characteristics by which normal health might be defined, but they represent the *essential* ones which the positively healthy person must possess; and in relation to the particular subject of the evening, let me stress to you again one characteristic—"Muscles that are *firm and elastic,* and padded with a normal amount of subcutaneous fat".

In order to have a clear mental conception of the relationship of proper weight to normal health, it is necessary to point out 3 fundamentals demanded by the human machine, if it is to function normally, and hence healthfully: (1) The machine must have an adequate supply of fuel (food) to keep it running and to supply it with the needed energy which it expends in the form of any type of work, physical, mental, or emotional. (2) It requires building materials with which to con-

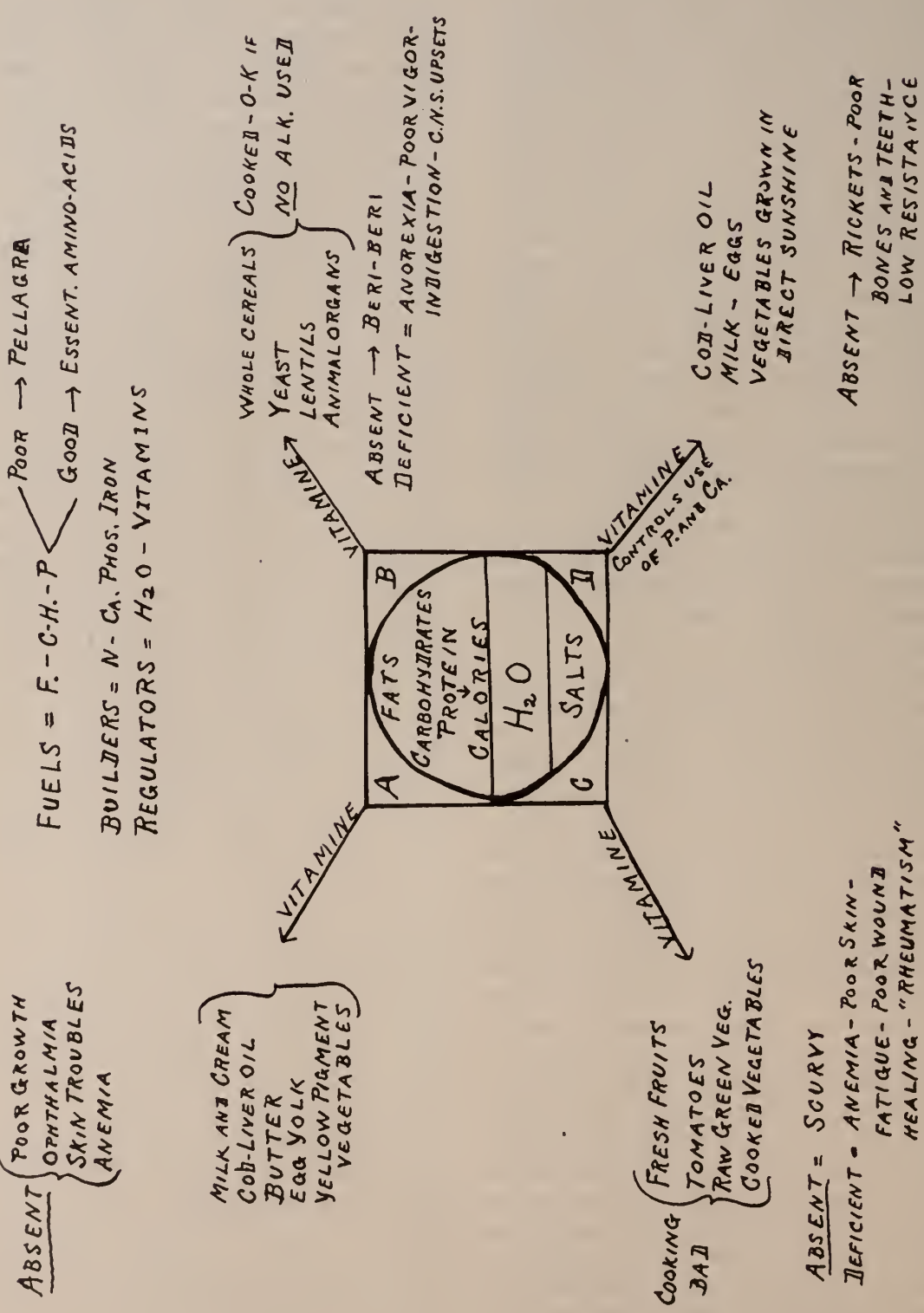
struct, maintain, and keep in a state of good repair all of the tissues of the body. (3) It requires regulators to keep all parts of the machine working smoothly and harmoniously. These needs are specific, relentless and perennial, and can be satisfied only by particular substances, each one of which is exactly like one of the links in a chain, weakness in any one of which affects the strength of the whole. All of these subtances are derivable from food, and although this statement does not imply by any means that diet and proper weight maintenance alone will insure health, it does mean that proper health is impossible without attention to correctness of diet. Fortunately, practical and usable information about this matter is neither difficult nor laborious to master, and is now readily available. Any interested person may build for himself, and particularly with his physician's help, a foundation of facts about foods which will guide him and help him guide others in the intelligent selection of the daily diet, both for maintaining normal weight and modifying weight abnormalities.

Until a few years ago, relatively speaking, food or diet was regarded as consisting of 5 essential constituents: Carbohydrates, fats, protein, water, and salts; and it was thought that these provided all of the material necessary for growth, energy and repair. One protein was considered as good as another; and fats, sugars and starches were regarded simply as providers of heat and energy, quite regardless of their choice. Calories, or food values, were considered the be-all and end-all of nutritional problems. This calory obsession still blinds many, physicians and laymen alike, to the significant advances that have been made in nutrition within the last 8-10 years, particularly those which have clearly demonstrated that there must be certain distinct accessory food factors present, called vitamins, if any given diet is to be satisfactory and hence health producing. The present conception of a well balanced diet is perhaps most clearly and easily capable of description by a brief study of the diagram which I have placed upon the board before you.

Normal Weight; What Controls It, and Questions Asked About It

As a result of a healthy growing interest in the relationship of body weight to health, laymen are asking us, as physicians, many questions concerning the subject, to many of which precise and positive replies can be given, and to many of which they cannot. What has weight to do with the state of health? Are very thin people or very stout ones healthy? If not, is the emaciation or thinness, or the obesity, due to ill health, or are they rather the cause of it? Why do different people of the same age, sex and height vary in their weight, and by what basis can it be decided whether one is too heavy or too light? What is the best weight for a man or woman of a given height and age? Have the glands of internal secretion *much* to do with the average person's weight? And if so, which one or ones, and why and how? If a person's weight deviates markedly from the so-called accepted optimum, is it possible to change it so that it will more closely approximate normal? If so, is it safe to do so? And if both safe and possible, is it worth the effort? At this point, it may be stated that although abnormalities in the functioning of certain of the glands of internal secretion do materially modify body weight in one way or another, in by far the majority of excessively thin and excessively fat persons the endocrine apparatus possessed is quite compatible with normal weight, provided only that proper habits of eating, exercising and resting are established and maintained; and, therefore, any further reference to glandular insufficiencies or excesses will be avoided in the further discussion of the problem at hand.

Body weight and its proper maintenance is the resultant of a great many factors involving the type and quantity of food and water ingested, the amount of energy expended, and a host of environmental and constitutional factors as yet not perfectly understood. Not all persons are born with entirely normal tendencies, and even among those who are so


ABSENT
POOR GROWTH
OPHTHALMIA
SKIN TROUBLES
ANEMIA
FUELS = F.-C-H.-P
POOR → PELLAGRA
GOOD → ESSENT. AMINO-ACIDS
BUILDERS = N- CA. PHOS. IRON
REGULATORS = H2O - VITAMINS
MILK AND CREAM
COD-LIVER OIL
BUTTER
EGG YOLK
YELLOW PIGMENT VEGETABLES
VITAMINE
WHOLE CEREALS
YEAST
LENTILS
ANIMAL ORGANS
COOKED - O-K IF NO ALK. USED
ABSENT → BERI-BERI
DEFICIENT = ANOREXIA - POOR VIGOR - INDIGESTION - C.N.S. UPSETS
A
B
FATS
CARBOHYDRATES
PROTEIN
CALORIES
H2O
SALTS
C
D
COOKING BAD
FRESH FRUITS
TOMATOES
RAW GREEN VEG.
COOKED VEGETABLES
ABSENT = SCURVY
DEFICIENT = ANEMIA - POOR SKIN - FATIGUE - POOR WOUND HEALING - "RHEUMATISM"
VITAMINE
CONTROLS USE OF P. AND CA.
COD-LIVER OIL
MILK - EGGS
VEGETABLES GROWN IN DIRECT SUNSHINE
ABSENT → RICKETS - POOR BONES AND TEETH - LOW RESISTANCE

born there are many who, through faulty training or acquired habits, develop faulty tendencies. In them the proper balance between intake and output becomes disturbed. Some are born with a strong tendency to thinness, others with an equal tendency to stoutness, apparently. These characteristics seem to run through families; but it must be remembered that quite aside from the actual theoretic inheritance, the habits of one member may and frequently do affect those of other members of the family, and hence the environmental influence of example reënforces a "baneful inherited tendency", or, as one author put it, "Both gluttonous and abstemious habits, as well as sedentary habits and those of physical activity, are more or less contagious". Leaving out of consideration those conditions of marked deviation from normal weight by reason of obvious disease, it can safely be stated that body weight in the vast majority of cases is what it is because of the relation of the amount and type of food taken in and assimilated by the body, to the amount of substances and energy that are given off by the body to the world outside.

It is recognized clearly that no standards of weight with reference to height, age and sex are entirely accurate or satisfactory. The tables we now possess are at best formulations of the averages of large numbers of presumably healthy children and adults. These averages must be regarded as middle lines only, with normal weight possibilities represented as zones extending some distance on either side of the line. There is a formula or simple rule, accurate enough for every-day clinical use, to employ in answer to the question, "How can I tell whether I weigh too much or too little?" It is this: Allow 110 pounds for a height of 5 feet; for each additional inch in height above 5 feet, add 5½ pounds for men and 5 for women. The resultant figure gives the so-called ideal net weight—and a 10 pound deviation above or below this figure is within the accepted health-weight zone. Examples: Male, 5 ft. 8 in.=110+44=154 pounds; Female, 5 ft. 4 in.=110+20=130 pounds.

The Dangers of Deviations From Normal Weight

It was my good fortune some 8 or 10 years ago to be associated actively with Doctor Lewellys F. Barker, who was then Professor of Medicine at John Hopkins University and successor in that capacity to Sir William Osler. In personal contact with him in both ward and private practice, I was early and enthusiastically impressed with the insistence of his demand for the readjustment of nutritional levels when they deviated much from the accepted normal, regardless of what the individual's physical state or complaints were otherwise. He would frequently state in either clinics or private talks that the more he watched people with reference to their food and weight tendencies, the more he was convinced that they could be grouped in 1 of 3 categories: Those who ate too much; those who ate too little; those who were too "damned finnicky". In practice these food and weight tendencies manifest themselves clinically in a number of different ways, and through necessity only brief reference can be made to the important significance, with reference to health, of over-weight and underweight, which fly 2 distinct sets of danger signals, and lead to 2 equally unpleasant destinations:

(1) Overweight, or obesity. The unlovely condition of corpulence, or obesity, has been divided by one author into 3 stages, known respectively as the enviable, the comical, and the pitiable. This is perhaps a somewhat false estimate of values, for no case of obesity is enviable, most of them are in a sense comical, and all are pitiable. The type of obesity under discussion here is inevitably alimentary in origin, and is caused by surfeit. This same author describes this type of obesity with 2 adjectives—contemptible and disgusting: contemptible because it denotes indulgence, greed or gormandizing, and perhaps laziness; disgusting because it represents an unsightly distortion of the human form and a serious impairment of both intellectual and physical faculties. As Shakespeare puts it: "Fat paunches have lean pates, and dainty bits

make rich the ribs, but bankrupt quite the wits." Quite apart from any effects which excessive and sustained obesity may have in dulling the acuity of intellectual functions, it must be remembered that all obese individuals are open to one of a number of very real dangers which menace them constantly. Of the many risks which these people run, but a few need or can be mentioned. How significant it is that the incidence of diabetes, as well as of gout, runs apparently in close parallelism to excessive weight tendency. From statistics, particularly of the last 10 years, it is apparent that diabetes occurs primarily in obese individuals in over 40% of the cases. Clinically, we recognize the need today of lowering the weight level if we expect the diabetic patient to do well and improve his carbohydrate tolerance. Quite apart from the valuable use of insulin, we, as physicians, need to instruct all of our diabetics in this sound advice: "You will do well if you maintain your body weight at approximately 10-15% below your so-called ideal normal." Obese people are no more immune to surgical emergencies than lean ones; and it is an accepted fact that there appears to be a distinct relationship between obesity, especially in women, and the high incidence of gall-bladder disease and gall-stones in them; just what that relationship is, is not yet settled, but it is a fact. In this group, as well as in any other surgical condition, obese individuals present poor surgical risks, for they are unusually prone to postoperative infections, to tardy or faulty healing of their wounds, to fat embolism, and show a singularly poor capacity to cope with the condition known as surgical shock when it occurs. In perhaps no other respect do obese individuals fly in the face of danger more than they do in relation to cardiovascular and renal diseases. Everyone knows of the proneness of the fat, lazy, plethoric individual to vascular cerebral insults, apoplexy, and the resultant years of pitiable helplessness, in lieu of which death would frequently be far the more preferable. Fat people expose themsleves needlessly to premature vascular degenerative changes, arteriosclerosis, or hardening of the blood vessels, as it is so commonly known to the layman. It is not an accepted fact that the obesity, per se, produces these conditions; but that the two run singularly parallel, is a matter of daily observation. Coincident with alterations in normal blood vessels, there is apt to come an increasing rise in blood pressure, and both of these conditions instantly and persistently throw extra and needless work upon a heart which was not designed to supply an adequate amount of blood per unit of time to a body carrying excess baggage. Not only is the efficiency of the heart handicapped by these alterations in pressure and blood vessels, but the same fat parasite stealthily insinuates itself about the heart and into its muscle, as well, apparently as though possessed of a single purpose, carried out on a diabolically perfected scheme, and devised of malice aforethought, to attack the very center and mainspring of the entire human machine. For these and other reasons, there is a steadily and alarmingly increasing incidence of premature deaths from so-called vascular and kidney disease, a high percentage of which could probably be prevented, or delayed at least, if the existence of excessive obesity in this country could be lowered. Some figures taken from the vital statistics of New York City will aptly emphasize this statement. In the year 1926, there were 16,461 deaths from organic heart disease, a morbidity rate of 278 per 100,000 population; in 1900, the total deaths from the same cause were 3858, a rate of 112 per 100,000. In the year 1926, the deaths due to cardiovascular and kidney diseases amounted to 25,631, as contrasted with 12,508 deaths from cancer and tuberculosis combined. This increase in deaths from cardiovascular-renal diseases is in sharp contrast to the steadily falling rate in infections and communicable diseases over the same period of time—and it suggests serious questions concerning the vitality of our people and their habits of living.

These New York City figures are representative of the general findings throughout the country. Though admitted that obesity alone is not the only or main cause of this grim advance in premature deaths, it plays no meagre rôle. There is a very large group of

unfortunate individuals spending lots of time and money in pilgrimages, seeking for relief from rheumatism, as they call it, arthritis—if you will; pitiable, crippled, deformed, unhappy and inefficient, these individuals present, particularly past the age of 45, problems which in the main can be traced back to alterations and perversions in the metabolism of their bodies, whereby joint alterations have been induced, aided and abetted by the mechanical strain factor which obesity imposes upon the important weight-bearing articulations. One might go on for a prolonged period, bringing further indictments against the crime of needless obesity and the utter impossibility of enjoying positive health in the sense that it has been defined, even though the individual in question, through a lack of annoying subjective symptoms, may with characteristic corpulent complacency regard himself as essentially well.

(2) On the other side of the ledger, let us look for just a few moments at the vast army of needlessly under-nourished people; and in this group one can quite properly include both those who eat insufficiently, and those who are too "damned finnicky". These individuals are incapable, because of an insufficient supply of fuel, of providing for their bodies adequate heat production, hence they are prone to be cold-blooded, anemic, and they constitute the rank and file of the thousands whose essential main complaint is voiced as lack of endurance, ease of fatigueability, and perhaps commonest of all—nervousness. It is, of course, a long-standing, recognized fact that needlessly thin people offer a poor measure of resistance to any and all types of infections, with perhaps particular emphasis upon respiratory diseases and pulmonary tuberculosis. It is in this group that we find most consistently all manner of symptoms vaguely referred to under the heading of "indigestion"; and, frankly, these are the unfortunates who far too often in this day of somewhat dangerous specialism fall into the hands of myopic specialists whose vision and perspective seem often unable to go beyond the domain of the gastro-intestinal tract. These are the people who grab most avidly the latest dietetic fetish; who succumb to harmful high colonic irrigations; who fall prey to the ever-present charlatanistic and uneducated fakers; who spend money needlessly in going from one sanatorium to another, treated here for one group of symptoms and elsewhere for another, but rarely, or at least too infrequently, dealt with as a personal problem rather than a physical one. Because of lack of appetite they do not eat; because of digestive disturbances they spend much time talking about their sufferings; and ideas that certain foods do not agree, cause more and more the cutting off of this and that article of diet, until the daily supply of fuel is both inadequate and unbalanced. Indeed, it is a matter of probable fact that more careful observation will reveal the sureness of the statement that a large group of purely functional digestive disturbances may well be traced to and laid at the door of an insufficient amount of vitamin ingestion. Thinness and nervous break-downs go hand in hand. These are the people who are particularly influenced by the abnormal effects of normal emotions such as fear, particularly; and it is established, of course, beyond any measure of discussion that abnormal degrees of apprehensiveness, fear of illness, resultant introspection, and illogical analysis of symptoms represent degrees of physical ill health and mental torture which are, if anything, more acute and devastating than outspoken physical pain on an organic basis. Included in this group of abnormally thin people there would come a large proportion of the much abused, too little understood, and harmfully ridiculed neurasthenics. A large proportion of these states of invalidism, which affect adversely not merely the individual but frequently his or her entire family, can in part be corrected by an adequate accession of needed pounds; but what is of equal or more importance, intelligent and sympathetic instruction as to the significance and interpretation of what it is all about. I believe that nothing has impressed me over a period of years so forcibly as the change which comes over people, sick, disheartened and discouraged, once they have been taught how to eat and why it is that pounds will frequently straighten out the co-

ordinated functioning of the entire machine. These are people who must be taught to eat, not because they are hungry, but because it is their duty; not because they crave food, but rather want health; and until a greater proportion of physicians cease treating a large and vague group of symptoms which invariably repeat themselves in the nonorganically diseased, thin individual, thousands will continue to drag needlessly along the pathway of life, getting little or no enjoyment as they travel. The healthy mental state of mind is satisfaction with life, based on legitimate self-confidence and belief in self, a faith in the goodness of the world, open-mindedness and breadth of view and unselfishness. Mental activity that is hurried, driven, anxious, or depressed, that is charged with "long range apprehensions or retrospective regrets", fears and worries, is distinctly injurious to health both of mind and body. A healthful mental state can be developed as surely as large muscles can be, though the process is neither so simple nor so easy. It is impossible, or needlessly hard, when to these forms of mental cancer there be added the factor of long sustained under-nutrition.

Summary and Conclusions

In an unavoidably fragmentary fashion, your attention has been directed to a few of the ways in which health, in its broadest sense, is adversely handicapped by improper weight. The question naturally arises: How can this matter be properly dealth with, and the adverse effects referred to escaped? The answer resolves itself, it would seem to me, about as follows: The problem of proper nutrition for each individual really starts in his or her prenatal state, and during pregnancy it is part of the physician's duty to see that the diet of the expectant mother provides those substances known to be of value to the new-born infant. Once born, the individual sooner or later should come under the scrutiny of an able pediatrician, who is presumed to be fully cognizant of the importance of nutrition and growth, their relation to food, and last but by no means least, one who recognizes and accepts every possible opportunity to pass on to parents intelligent advice and instruction with reference to food habits, regularity in eating, the dangers of food notions and indulgences, the importance of early formed tendencies of elimination, regularity, and the value of rest, work and play in proper amounts each day. Through early childhood and adolesence, parental interest in acquisition of normal habits generally will go far to neutralize adverse hereditary factors, and in no other period can so much be done to insure health stability in the years of increasing responsibility ahead. From the age of 20 onward, let's say, the family physician is the one who should be on the keen lookout for those various conditions known to arise, in part at least, from faulty weight deviations; their early detection is priceless, and this is but one other reason for the legitimate urge that at least once a year everyone should have a general health survey, regardless of his or her sense of well-being. The wisdom of such a procedure becomes increasingly obvious as the years stretch out into the third and fourth decades, for every astute physician has had the almost daily and sad experience of facing situations which many times need not have been. In a word, then, all along the line—infancy, childhood, adolescence and maturity—each physician has the chance to be and is the logical adviser in matters of health, and should be keenly aware of the importance of proper weight consistently maintained. The physician whose records bear no evidence of weight interest, and whose office is unequipped with accurate scales, is subject to criticism.

But this is only one side of the problem; but half of the answer. All of the accumulated knowledge in the world is futile, if individuals either fail to seek it, or having had it given them, fail to use it, or twist it to suit their own ideas and convenience. If parents set bad examples in their habits of eating, are themselves the victims of ridiculous whims and caprices, prone to self-indulgence and the easy prey to their emotions rather than their judgment, their children are almost bound to follow in the same dangerous foot-steps. Accelerating or retarding influences of good or bad nutrition, are particularly pronounced and

potentially dangerous during adolescence, apparently somewhat more so in girls than in boys. The bony debutante cannot know that the price of a boyish figure may be and often is sterility, or an enduring nervous stability and an alteration of her innate winsomeness, particularly when so often she is confronted by the pitiable picture of an obese mother, whose interest in cards, teas, lunches, and lethal banquets, quite blind her to other personal duties and parental obligations. Many instances of the adoption of dangerous reducing régimes by young women, are, on careful analysis, actuated not so much by the contemporary vogue as by an actual fear and disgust lest they become obese like their mother or father. The other side of the story is portrayed in the misdirected search for and acceptance of the many fake reduction cures, available for all who will bite. With the possible exception of the credulity of a baldheaded man in the field of hair-growers, there is nowhere to be found such guileless trustfulness in the verity of printer's ink as that possessed by the obese woman in the realm of fat cures. They all lure by seeming simplicity and plausibility. Be it said without much fear of contradiction that while a few are harmless, because impotent, most of them are dangerous. To such as blindly seek obesity emancipation, Wendell Phillips' words aptly apply: "Before you roll off, or starve off, or steam off that pound of flesh, find out whether you should not rather be putting it on, following the advice of medical science instead of pinning your faith to a fad." In the last analysis, Sydenham's philosophic epigram still rings true, when he said: "He that hath attained the age of 40, abateth himself somewhat of his diet, be he not a fool."

To many of the questions raised earlier in this paper intelligent and trustworthy answers can be given by meticulously honest and alert physicians to interested seekers for the truth, no matter what the age of the inquirer. When all is said and done, the importance of weight in relation to general health will never be appropriately recognized unless health as a social ideal is more successfully inoculated into the minds of the present and oncoming generations. To the youth, able biologically to preserve and to pass on to future generations the desirable human qualities, such an ideal comes as a challenge that he may accept, knowing, too, that he will need all that he possesses of fortitude and courage; to the one that has passed the meridian of life, the appeal is concerned chiefly with the influence of living that is to be exerted, and with the preservation of the best treasures of the social inheritance. Thus, tradition and the habits of the people are powerful forces, determining largely the kind of response that posterity will give. For both young and old, such an health ideal will quicken and give meaning to life; both may become interested in passing on an inheritance that shall be a fulfillment of trusteeship. To bequeath to immediate or distant offspring biologic and social jewels, is incomparably superior to the oft-valued bequest of silver spoons, pewter plates, old clocks, or a huge dowry.

HEMOCHROMATOSIS (BRONZED DIABETES)

Report of Case

Michael Vinciguerra, M.D.,
Attending Physician,
and
A. R. Casilli, M.D.,
Pathologist,
Medical Department Elizabeth General Hospital,
Elizabeth, New Jersey

The number of cases of hemochromatosis that have been reported in the literature is as yet small. This, coupled with the fact that little is known regarding the etiology and pathogenesis of the deposition of iron pigment in the liver, spleen, pancreas, lymphglands and other organs, makes the report of another case, in the opinion of the present writers, worth while.

Hemochromatosis is often associated with a mild diabetes, and to this symptom complex von Recklinghausen gave the name of bronzed diabetes. There is, however, a distinct differ-

ence between this type of diabetes and diabetes mellitus. Clinically, the former shows only a mild hyperglycemia and little or no urinary sugar, while in the latter the hyperglycemia and glycosuria are proportionate to the severity of the disease. Histologically, in diabetes mellitus the changes are confined to the islands of Langerhans, and are, as Allen shows,[1] those characteristic of hydropic degeneration. In hemochromatosis, on the other hand, the islands show at most only a deposition of iron pigment, but there is a disorganization of the normal histologic structure by a great proliferation of connective tissue, which scatters, as it were, the parenchyma cells. In the parenchyma cells and the newly proliferated connective tissue there is an immense deposition of iron pigment. Cirrhosis of the liver, of the periportal type, is always present, with its resulting ascites.

We are totally ignorant of the etiology of the disease, and as yet little is known of the pathogenesis of the pigment deposits. It has been found that the pigment is mostly an iron-containing one (hemosiderin), with a relatively small amount of a non-iron-containing substance (hemofuchsin). The amount of iron present in the normal body is about 3 gm., while in hemochromatosis analysis has shown it to be present in amounts as high as 38 gm. Karsner therefore maintains[2] that there must be a functional defect in the elimination of iron, which produces an accumulation of pigment in the tissues, with consequent irritation and proliferation of connective tissue, the end-result being a sclerosis of the organs, particularly the liver and pancreas. It is evident that the bronzing of the skin and organs is not due to an anemia of the hemolytic type, nor to biliary obstruction, since the Vandenburgh reaction (if this reaction is worth anything) is always negative for the direct and indirect phases.

Report of Case

J. B., male, aged 66, was admitted to hospital November 21, 1927, complaining of generalized weakness, cough with frothy mucoid sputum, and swelling of the abdomen and lower extremities.

Previous History. Had been under treatment for diabetes mellitus for several years past. Venereal disease denied, also indulgence in alcoholic beverages.

Present Illness. Patient first noted accumulation of fluid in the abdomen about a week previous to admission; this anasarca soon became generalized and increased to such an extent as to interfere with locomotion. He was constipated, and had occasionally noted bloody stools. No history of pain in the precordial or thoracic regions.

Physical Examination. White male, lying in bed, apparently ill. Generalized grayish hue of skin. Pupils equal, contracted; eyes react sluggishly to light and accommodation. Ears and nose negative on external examination. Teeth very carious; pyorrhea alveolaris. Lungs, increase of tactile and vocal fremitus in the right chest posteriorly. No râles present. (A later examination revealed diminished breath sounds, and a to-and-fro harsh friction rub in this area; dry pleurisy). Heart: Apex impulse felt in sixth interspace, just outside of the midclavicular line. On percussion, heart outline slightly enlarged to the left. Heart sounds feeble and of poor quality. No murmurs heard.

Abdomen: Liver edge palpable 5 fingers' breadth below right costal margin. Spleen not palpable. Shifting dullness in the flanks, and a succussion splash elicited. A right inguinal hernia present.

Extremities: Upper, slightly edematous; lower, markedly so. Respiration 20-30 per minute. Pulse 85-100 per minute. Temperature between 97.5° and 100° F., the highest and lowest figures being 100.2° and 96° respectively. Blood pressure: 114/78. Blood chemistry: non-protein nitrogen, 24 mgs. Wassermann and Kahn reactions negative. Vandenburgh reaction negative.

Icteric index 2.7. Urine: Cloudy; acid. Faint trace albumin, few epithelium cells, few leukocytes, with occasional clump; no sugar. An examination a week later showed a slight reduction with Fehling's solution, which persisted for 3 days and then disappeared, although the patient was still on the same diet.

Blood count: Nov. 2, 1927, white cells, 13,-

550; polys 85%; monos 13%; endothelials 2%. Dec. 8, 1927, white cells 12,400; red cells 4,000,000; hemoglobin 60%.

Autopsy Report

Essential Features: Diffuse bronzing of skin; anasarca (legs especially); ascites; hydropericardium; deep brown friable heart muscle; diffuse rusty edema of all lobes of lungs; hypertrophy of spleen; large hobnail liver; ochre sclerosed pancreas; ochre friable large kidneys; brown hyperplasia of retroperitoneal and mesenteric lymph-glands; passive congestion of gastro-intestinal tract. Body 66 in. long, weight 170 lbs. Heart 350 gm.; liver 2000 gm.; spleen 300 gm.; pancreas 75 gm.; left kidney 140 and right 155 gm.

Gross Description: Deep yellow transparent fluid, admixed with fibrin coagula, in peritoneum, both pleural cavities, and pericardial sac. The serosa, although stained brown, still retained its luster. Both lungs floated in water. Slight congestion of the bronchial tree, but no pus points could be demonstrated in the capillary bronchi. The peribronchial glands showed a peculiar mixture of black (anthracosis) and deep brown staining. Moderate anthracosis in the lymphatics of the lung surfaces. The spleen showed a peculiar color mixture of purplish and brown staining. The cut surface showed the pulp mushy, and the trabeculæ were prominent. The liver showed a smooth tense capsule, stretched by numerous hobnail bulgings of various sizes. The cut surface was ochre in color, and the same nodules were observed on the surface bulgings within.

Here and there the landmarks of the liver were evidenced by the congested central veins. The intrahepatic biliary system did not appear to be dilated. The gall-bladder and extrabiliary ducts were free from obstruction, and the bile could be easily expressed from the common duct into the duodenum at the ampulla of Vater. The pancreas was deep brown in color, and very hard to touch. The cross-section was also ochre in color, and the lobules were hardly visible. Both kidneys were deep brown in color, but the capsules were smooth and glistening, and stripped off easily, leaving a smooth surface upon which the congested stellate veins were easily made out. The cut surface showed the same coloring. The relation of the cortex to the medulla was retained (3-1). Dark blood was expressed from the vasa recta. The structure was friable, the pelves and ureters apparently free from pathology. The bladder was distended with clear brown urine. The mucosa was free and clear, and the prostate was normal in size and conformation. The retroperitoneal and mesenteric glands were hypertrophied, rather firm, and deep brown in color.

Microscopic Examination: The essential histologic changes in the sections of organs examined were: Proliferation of new connective tissue, deposits of deep brown pigment in enlarged cells of the parenchyma, in cells of the reticulo-endothelial system, and into the connective tissue. Foci of histiocytes, polynuclears, and lymphocytes occur in several places. Details of histologic pathology in the liver and pancreas, therefore, will alone be presented here.

The liver (Fig. 1) showed a marked overgrowth of connective tissue around the portal

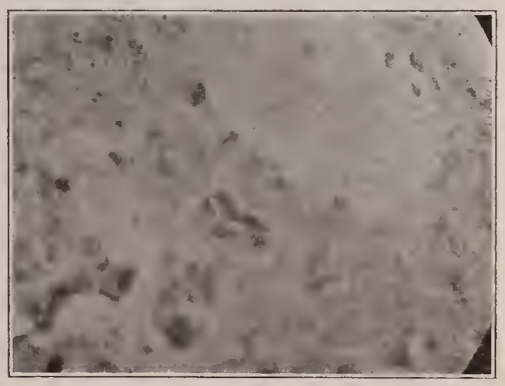


Figure 1.
(*Under high power*)
Liver

system, encircling areas of parenchyma in which hyperplasia of biliary ducts was in evidence. The liver cells, as in ordinary atrophic cirrhosis, showed atrophy in the center of the islands, but were actually larger than normal at the periphery. In other places there was a complete disorganization of structure. The liver cells were scattered, as it were, by the

proliferation of dense new connective tissue. Here the cells were very large, and loaded with deep brown granules of pigment. The fibrous tissue was, as a rule, of the adult type. The cells of Kupfer, especially, took up the pigment in large amounts.

The pancreas (Fig. 2) showed almost complete disorganization of histologic landmarks. Most of the glandular structures were disorganized, so that the cells appeared single. If one could conceive of a bombshell exploding in a building and demolishing it, a comparable picture could be visualized in the pancreas. The islands of Langherhans could, however, be identified, and, with the exception of these cells containing brown pigment, no pathology could be demonstrated. Fibrosis was marked. The parenchyma cells were loaded with deep brown gross granules of pigment, as were also the cells lining the sinuses.

Causa Mortis: Hemochromatosis.

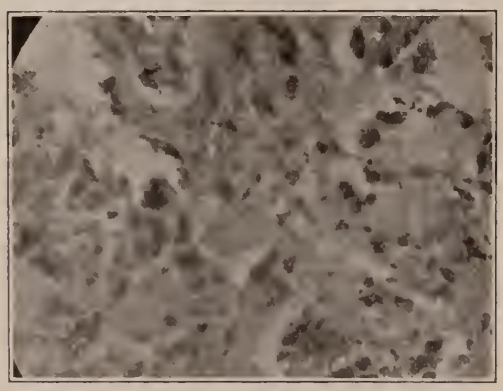


Figure 2.
(*Under high power*)
PANCREAS

COMMENTS AND CONCLUSIONS

From the clinical and pathologic evidence at hand, the case here described easily falls into the class of hemochromatosis. From the report of the case nothing new can be deduced to clarify the etiology and pathogenesis of the pigment deposit. However, with the introduction of the Vandenburgh reaction in the study of the case, a clinical aphorism for the diagnosis of the disease can be formulated. An adult showing a general bronze tinge of the skin, with little or no urinary sugar, moderate hyperglycemia, ascites, and a negative Vandenburgh reaction for both direct and indirect phases, is suffering from hemochromatosis.

(1) Allen, F. M.: Experimental Studies on Diabetes, Jour. Exper. Med., 31:555, 1920.
(2) Karsner, H. T.: Human Pathology, 27-28. J. B. Lippincott Co., 1926.

THE RELATION OF MENTAL HYGIENE CLINICS TO GENERAL HOSPITALS

HENRY A. COTTON, M.D.,
Trenton, N. J.
Medical Director, New Jersey State Hospital, Trenton, N. J.

(Read before the Atlantic County Medical Society, May 10, 1929)

It is always a pleasure to appear before the Atlantic County Medical Society and I consider myself honored by the invitation to appear here tonight. My subject is one that I know will appeal to every physician here. We have talked for years about mental hygiene and what it will accomplish in the way of prevention of the alarming increase in the incidence of mental disorders. I am afraid our predictions of what could be accomplished have not been commensurate with our talking. We were in somewhat the same position as the old darkey who appealed to the judge in order to get a divorce from his wife. When asked what the trouble appeared to be he said: "Well, Judge, she just talks, talks all the time." The judge said: "Well, what does she talk about?" The darkey replied mournfully: "She just don't say, Judge, she just don't say." I am afraid I will have to plead guilty to this indictment in times past. For although we talked a great deal, very little has been accomplished that would appeal to the practicing physician as worthy of his attention.

In former years there was little or no reason to urge the establishment of mental hygiene clinics in general hospitals. The common conception was that nothing could be done for patients afflicted with a mental disorder

except to confine him to a hospital for the insane or private sanitarium, and the sooner the better, or in some cases it was deemed wise to avoid commitment to such a hospital as long as possible. The accepted viewpoint was that such patients being mental, the causes were mental, and therefore mental treatment was the only treatment which could and would be effective. The fallacy of such a theory is easily shown. The fact that the increase of the insane in institutions is 4 times that of the general population (440% to 110%) is evidence that mental treatment has at least been unsuccessful in curing such patients and has been an utter failure in preventing the occurrence and increase of this disease.

Fortunately, our work at Trenton in the last 10 years has demonstrated that instead of the old formula of mental diseases, mental causes, and mental treatment; we have a new formula—mental diseases, physical causes, and physical treatment. In plainer words physical disorders causing mental symptoms can be treated successfully by treating the physical abnormalities. There is still some dissension, especially among psychiatrists, from this idea, but gradually the opposition is decreasing and more and more institutions are recognizing the importance and value to the patients of a full recognition of this doctrine.

We believe that it is impossible to have a diseased mind without a diseased brain; that the mind can be diseased and the brain normal in structure is a biologic anomaly and today should be cast into the limbo of false doctrines. The same can be said of heredity. Formerly, heredity was given the greatest importance as a causative factor in the production of mental disorders and while it still has some value we have relegated it to a position of minor importance. But the doctrine of heredity is deeply rooted in the minds of psychiatrists and it is not easily relegated to a subordinate place among causal factors. While the mental factors are still important, in our opinion, they are not necessary to produce mental disorder and when present act largely as precipitating factors.

This view of the diseased mind with a normal brain is incompatible with every known fact in psychiatry. For example, we know that an idiot has no mind because of faulty structure of the brain tissue; that no matter how brilliant a man may be if he lives long enough and senility occurs he will become childish and demented with no resemblance of his former self. Why? Because of disturbances of the brain tissue, easily demonstrated under the microscope, which changes cause the senile dementia. Also, further, that in such diseases as paresis or brain syphilis the mental symptoms are the direct results of destructive lesions in the brain due to the spirochete pallida which has invaded the brain tissue.

And we have demonstrated that in the so-called functional mental disorders such as mania, or mania depressive insanity, dementia præcox, and paranoid or delusional types, that there are definite pathologic and anatomic changes in the brain tissue which have a definite causal relation to the mental symptoms. Formerly many of the physical disturbances eluded us because such disturbances were not disclosed by the ordinary physical examination and as the patient in many instances did not complain of them they went unnoticed.

Internal medicine had to write an entirely new chapter before the newer methods could be utilized by the psychiatrist. The progress in laboratory diagnosis, as well as x-ray diagnosis, has furnished a rich source of assistance to the psychiatrist. We have found that chronic infection of the teeth, tonsils, sinuses, gastro-intestinal tract, genito-urinary system in the male, and gynecologic system in the female, produces the toxic factors which when taken up by the circulation reach the brain and by such poisoning cause the mental symptoms. By just what mechanism this is accomplished we are in doubt, but we are not in doubt as to the fundamental facts that such infections and resulting toxemia are the real causative factors in producing the mental disorder in the so-called functional group of the psychoses. We have found further, and this is the most important point, that by eliminating these sources of infection the patient will recover from the mental disorder.

In order to demonstrate these sources of

hidden infections in our patients it is necessary to conduct a diagnostic survey just as is done in every well regulated and efficient clinic today. We have had to provide similar equipment and facilities in our hospitals for the insane as found in the well equipped general hospitals today. We have efficient laboratories, x-ray equipment, dental facilities, and surgical equipment, including operating facilities, which compare favorably with any general hospital. The modern state hospital is far removed from the old hospitals which were in reality asylums or custodial institutions.

Because the patients are afflicted with mental disorders it is more difficult and requires a higher degree of efficiency to locate and eradicate chronic infections. We have to arrange for the services of the various specialists, the dentist, the nose and throat, genitourinary, gynecologic, and surgical specialists to assist us in the work. The psychiatrist has become one of a group in making the diagnostic survey which plays such an important rôle in our treatment of mental disease today. Therefore, you will now be able to see how the general hospitals can aid, not only in the treatment of mental cases but in prevention as well.

But how can the state hospitals hope to cope with an alarming increase in admissions and successfully treat these cases? By enlarging the facilities, increasing the medical personnel, yes, but we are of the opinion that more and more the general hospital will have to share this responsibility and relieve us of the increasing burden. This can best be accomplished by the establishment of mental clinics in the general hospitals in the various counties. These clinics have a very definite function to perform but can assist materially in lessening the number of mental cases and in the prevention program as well. One of the most important functions will be to reach the mental patient long before such a patient is committed to a state hospital. Many people still have a prejudice against going to a state hospital, but they would not be reluctant to visit a clinic in a general hospital. Thus many patients could be reached at the onset of the mental symptoms, at a time when treatment would be more efficient and successful. The diagnostic survey could well be made in the out-patient department of the general hospital because all the facilities for such an examination would be available. The laboratory, x-ray, dental, and nose and throat departments are already in existence. Other facilities such as colon irrigation apparatus and physiotherapy equipment would have to be provided if not already part of the hospital equipment.

Many of the mental patients, at the time of the onset of mental symptoms, provided they were not of the more violent and excited types, could be treated as ambulatory patients, and the work of removing chronic foci of infection could be carried out without having the patient in the hospital. Some cases, where the symptoms were more pronounced, could be recommended for treatment at the county or state hospital.

We have been operating clinics successfully in several counties for a number of years. For 10 years we have had a Mental Hygiene Clinic in Monmouth County and one in Mercer County, and more recently in Somerset and Camden Counties; Burlington, Middlesex, and other counties will soon have clinics. We want to enlist the coöperation of the physicians and social service organizations in Atlantic County in this work and I am sure that you will be more than satisfied with the results in the clinics in the other counties. Besides the treatment of pre-institutional cases the clinic would also function in the examination and treatment of abnormal and subnormal children. This is a very important part of the work and I know will be welcome to the social service workers and school authorities. This feature of the clinic has been very successful in Monmouth County.

It will be necessary to set aside a room for examinations to be made by a member of the Staff of the State Hospital. This work is under the direction of Dr. Paul B. Means, with an assistant and a psychologist. The clinic could operate once a week or once in 2 weeks depending upon the number of cases to be examined. Usually only about 6 cases can be examined thoroughly in a day. These cases

could be referred by the physician and the social service workers, the previous histories taken as outlined by us, records kept at the clinic and copies at the State Hospital. It would be advisable if one member of the staff, interested in nervous and mental work, would coöperate with the member of the Staff from the State Hospital.

When the success of these clinics is established we hope that we will be ready for the next step in the program of prevention, and that is the provision of mental wards in the general hospital. This is a departure from former practices, but I think the time is not far distant when mental wards will be found in all the general hospitals and the same treatment given to mental patients as is now the rule in the modern state hospitals.

I want to thank you for this opportunity of laying before you our plan for the extension of our work. The liberal and enlightened policy of the State Board of Institutions and Agencies and the efficient commissioner, Mr. William J. Ellis, has made this work possible. The hearty coöperation on the part of the county hospitals for a successful outcome of this work is our earnest desire, and in the near future we are confident that such an arrangement will be of immense benefit to the patient, the counties and the state.

THE PLACE OF A MENTAL HYGIENE CLINIC FOR CHILDREN IN THE COMMUNITY*

J. S. Plant, A.M., M.D.,
Director Essex County Juvenile Clinic,
Newark, N. J.

The Essex County Juvenile Clinic was established by the Board of Freeholders of that county 6 years ago. It is under Overbrook Hospital and the Director makes his reports, requests, etc., to the superintendent of that hospital. The clinic staff consists of a psychiatrist and a varying number of psychiatric social workers (2 to 5)—together with stenographic help. In most of the similar clinics throughout the country there is also a psychologist; it just happens that, with us, the psychologist and psychiatrist are combined. The value of this last arrangement is open to question but it allows of an intimacy of contact between the child and the person studying him that outweighs any other considerations. The expense of such a layout is about $20,000 per year.

This clinic has 2 distinct functions. Between these there is an interlocking which defies clear analysis since the clinical and teaching functions are mutually dependent upon each other. The clinical function resolves itself into accepting about 450 new patients each year, with a constant and persistent follow-up on every patient seen. This frank and unending follow-up with the notion of trying to discover whether the recommendations are of value is an extremely important part of the clinical function. The teaching function is harder to picture. The handling of the various conduct disorders—bed-wetting, thumb-sucking, shyness, bullying, laziness, day-dreaming, stammering, masturbation and psychoneurotic symptoms of all sorts—must eventually lie in the hands of parents, teachers, nurses, the policemen on the beat, in fact, precisely in the hands of those who at the earliest moments can in sane and simple ways make what are then simple adjustments. This means constant lecture work to groups, constant planned "demonstrations" of what our goal is, constant planning and advising in what amounts to a vast program of social engineering.

Clinical Functions

The clinical function is of great interest to the general practitioner. The first of these clinics was established by Dr. William Healy in Chicago in 1911. It represented the application of the physician's point of view to the problems of crime and delinquency. The lawyer is interested in the question of the existence of a fact. Did Johnny steal the money, and how much did he steal? The physician looks upon the stealing as he looks

*(Read at the 163rd annual meeting of the Medical Society of New Jersey, Atlantic City, June 13, 1929.)

upon a fever — as a *symptom. Why* did Johnny steal and what does the stealing *mean?* We physicians look upon disease as the reaction of the normal body to abnormal conditions. Virchow taught us that 50 years ago. Thus we often see the most distressing physical symptoms as no more than signs that the body is not in essentially good condition. Take a meningitis as an example—who in this room does not dread the low temperature and the insidious symptoms? That is, the physician comes to the problems of children's malajustments with a distinctly new social philosophy. To these disorders he applies a method of diagnosis and the delinquency or mental habit has only the same value that has any symptom.

In making this diagnosis the psychiatrist attempts to acquaint himself with the total make-up of the child and of his environment, past and present. This means first of all a physical examination—looking for the poisons that sap and irritate, the malnutrition that fatigues, the glandular disorders that bespeak emotional imbalance, the gross heart lesions that lead to abnormal means of winning a place in the world because the normal channels are blocked. This accounts for some 10 to 15% of the cases.

Then we employ a series of psychologic tests. Here we measure the intellectual ability, find the intellectual assets and liabilities, mayhap find the reason for failure in school or in one particular subject, make possible more accurate prognostications as to how far the child can go in academic work, etc. Wrong school placement, either in too high or too low a grade or in special subjects too hard or too easy, is an extremely important source of the frank truancy or even the vaguer dissatisfaction and unhappiness that are the forerunners of more serious difficulties. We have here also the problem of those who are frankly defective. These latter make up 25 to 30% of our problems.

There is then the psychiatric examination or what we term the "own story". This means a one or two hour talk with the youngster about his life from the earliest time he can remember. Who were his playmates, what were his ambitions, where was he thwarted, what does he like, how does he stand that angelic brother of his, with whom does he play and what does he play? In fact, we try in a brief way to retrace the youngster's whole development. It is fatal to start, as does the lawyer, from the present trouble. The story is then merely a justification of the present situation. For instance, you cannot get a boy's confidence in asking him about his masturbation or directly "accusing" him of it. In fact you usually, with this method, only serve to make him all the more terribly feel that this guilty, sinful act is proclaimed in his eyes, his gait, his attitude. On the other hand, he is quite free to tell you of his first bad neighborhood, the first dirty words, the later corner gang that talked about these things, and the boy who "kidded" him into trying it as an experiment. Here you get the diagnosis as a picture of a series of events and the boy talks his present problem with you frankly because you have lived through its genesis with him.

These "own stories" are intensely interesting and varied. Time alone prevents the recounting of many that show the actual delinquency or peculiar mental habit to be nothing but the child's quite immature but thoroughly normal attempt at solving a problem. I stop to say but one thing—that there is no *cause* for crime; the way to the difficulties of life is as variegated as life itself. It is just as ridiculous for us to talk of *the* cause of crime as it is to talk of *the* cause for headache or *the* cause of a rise in temperature!

Paralleling this study of the child, a psychiatric social worker makes a similar but, of course, less exhaustive study of the environment. She must know the boy's stock, the instabilities or stolidities that are the basic fabric of his life. She interests herself in the ambitions and disappointments of the parents and teachers; all those drives that seek relief in working out in some child the life the adult *wished* that he had led. Relatives, scout leaders, ministers, neighborhood—wherever she can find the influences and drives that have touched the child's life, there she goes.

The result is a genetic picture of the trends

of the child's life, a realization that the present difficulty is but the expected outcome of a series of influences. For young children the social worker's study is the more vital; for older children the trends within the child himself become more important. This summarized picture, with the suggested therapy, is returned to the referring parents, teacher, judge or physician.

These clinics started working largely with adolescent children in the courts. What has been said so far must lead you to realize that we are largely interested in prevention and that there must be every tendency for us to try to reach earlier situations. Thus we have been interesting the schools in getting at their problem children. In Essex County there is already a school program 4 times as large as our court program. You will perhaps sometime hear Dr. Bruce Robinson who is a part of that school program. Now, we are going more and more into a pre-school program. A county clinic means nothing if it is not spreading this physician's point of view—this medical philosophy—into every nook and cranny of the family life of the county. Each day finds us a little more able to teach prevention. That is the keynote of modern medicine and the psychiatric clinic is nothing other than the introduction of the medical point of view into a new field—the field of social engineering.

The therapy depends, as elsewhere in medicine, upon the diagnosis. However, there has been on the whole the development of a better diagnostic than therapeutic technic. The field is new and in all of its branches we have a long way to go, but we have gone further with our diagnosis than with our therapy. We would stress however, that, much more than in any other branch of medicine, there is usually a tremendous lessening of the stresses of the situation when their source is opened to view. We are all acquainted with the relief that comes from "talking over" a situation. There is a certain objectivity about placing a situation before one's self that of itself remarkably relieves the total situation.

Teaching Function

The teaching function is quickly described, although it is perhaps more important than the clinical function. After all, there are large factors of teaching involved in each case. We know too little about the total personality to treat it directly; thus, much of the therapy is the matter of teaching the child how to find happiness and his parents how to let him do this. Beyond this lies a large zone of teaching which we largely do through giving courses in the problems of conduct disorders to nurses, teachers and probation officers. We earlier did a great deal of lecturing to parents—separate lectures to different groups. This we have given up because the contact is too short and the parent gets from the lecture only what he or she wants to get.

There is a further teaching function that is difficult to state in a few words. I have attempted to show that we are dealing with a new point of view as to the conduct of people. The matter of spreading this doctrine, of teaching to all of the people that the conduct which they see and themselves display is but a symptom of the underlying personality traits and drives, that, in an age of materialism and overweening interest in facts as opposed to those more basic factors which we might term the "spiritual" aspect of life, is of the deepest importance and amounts to an educational program of vast magnitude.

Conclusions

A word in conclusion. Why is this work of interest to physicians? We are living in an age of unprecedented stress. Crime is our biggest business; there are as many beds, in this country, for the insane as for all other sicknesses combined. You cannot prohibit unhappiness by a constitutional amendment; you cannot suppress crime by a series of stringent laws; you cannot prevent insanity by keeping here and there a few people adjusted outside of a hospital or by pridefully pointing to a few more paroles. If William James could in 1890 picture the new-born babe's vision of the environment as a "big, blooming, buzzing, confusion" what would he say of these vast

urban conglomerations of 1929? The harvest we are reaping is jail upon jail, hospital upon hospital, your neighborhood filled with tense, on-edge, striving, competing individuals. For this the mental hygiene clinic does not offer the solution. But it does offer a new, scientific, *reasonable approach*. It offers the method and philosophy of the physician—the idea that these phenomena are but symptoms—and that there can be no real therapy until there is diagnosis, no real diagnosis that does not entail prevention. I ask you to seriously gaze upon the vision that what you have done for tuberculosis, what you have done for diphtheria, what you have done for typhoid, you can do, by *your* methods, for the deepest and most sinister of all human ailments—unhappiness.

This is a challenge!

Discussion

Dr. Guy Payne (Overbrook, Pa.): As Dr. Plant has said, he is chiefly interested in prevention, the prevention of crime and of nervous and mental disorders, and I think that it is most appropriate that this paper should have been read before the pediatricians, because they certainly have the opportunity to do a great deal in the prevention of nervous and mental diseases and in the prevention of crime, for these problem children must come to them. When we consider, as Dr. Plant said, that there are more hospital beds in the United States occupied by various patients suffering from nervous and mental diseases than from all other illnesses combined it is certainly time that we should try to do something to stem this tide. We who are working with the end-products realize that we are accomplishing very little and the great progress must be done in the way of prevention and the sooner the problem is attacked, the earlier in life with the problem child, the better the results that will be obtained.

It is claimed that there is but one state in the union where the increase in insanity is less than the percentage of increase in the population, and that state is Massachusetts, and Dr. Cline (?) feels that this is due to the fact that they have had mental clinics carried on from their state hospitals for the past 10 years, and also from juvenile clinics in the state.

There are many factors that are important in the prevention of nervous and mental diseases, such factors as heredity, the care and protection of the mother during pregnancy, the care at the time of delivery, the education of the parents in bringing up the child, and rational training in the schools; and then all through life the prevention of infection, infectious diseases, care of the teeth, syphilis, alcohol, etc. I feel that it is time that a great work was being done in the way of prevention of nervous and mental diseases and of crime.

Dr. Henry Spence (Jersey City): Dr. Plant has given us a very clear picture of his clinic in Essex County. It is a very valuable one; in fact, a model of its kind. It has been successful, first, because it was founded and supported by a man of the type of Dr. Christopher Beling; and secondly because it has been run by Dr. Plant who is thoroughly schooled along the lines of psychiatry, psychology and special training for the work. Dr. Plant has an unusual personality, which gives him a splendid approach to children and all classes of delinquents. The personal equation is very important in the conduct of mental hygiene work, as it is on this quality that the confidence of patients is obtained.

I have been impressed, as have a great many of you, with the vast sums of money that we are increasingly expending for the building and support of jails, hospitals and other institutions for the care of the states' wards. It is becoming tremendous, and we have not been attacking the subject like we have diseases such as tuberculosis. We have allowed children who early show maladjustments to go along until they get into the chronic stage or a stage where they have to be taken care of in state hospitals for mental conditions or penal or correctional institutions. When we allow individuals to reach that stage, we then have them as a permanent charge.

I am very pleased to hear Dr. Plant state that he is so interested in arriving at the cause and prevention of these conditions. That promises a great deal better use of our money.

I hope the physicians of the state will be sold on this service, because they are the ones who must first see the value, then it can be sold to the public. When the plan is finally sold to the public, it offers, in my opinion, a great opportunity in preventive medicine.

Dr. Julius Levy (Newark): I think Dr. Plant had in mind something more than hygiene clinics to deal with this problem of preventive medicine. After all, mental clinics are likely to deal, as indicated in his report, with those who already present difficulties, those who have already gotten into conflict with the law or with their surroundings or with their family. The real preventive mental hygiene I think will have to attack the problem in the same way as has been done with the physical problem. Thus I think we will have to deal with the apparently normal infant, the normal child, and try to give to the parent something of our knowledge in the normal development of children, how to deal at the very outset with the child and its environments.

I think Dr. Plant might perhaps find encouragement and help in the machinery already at hand. There are now in the state of New Jersey about 500 nurses who are constantly visiting parents in regard to their children and who are visiting mothers before their infants are born. Their work has been restricted more or less to teaching mothers how to bring up their children physically. Those who deal with children know that the properly regulated and properly fed infant easily adjusts itself. On the other hand, we find infants who present great feeding problems because the child has never learned to adjust itself to its family and its home and the mother brings the child to the doctor thinking it simply has no appetite, while we know the child is an egocentric infant just because he can command attention on the subject of his food. Now it has been my thought that if men like Dr. Plant and those who are more expert than the average physicians in the psychologic phases of infant problems could only give some impetus, some direction, some information

to those who are already dealing with children on the physical side it would be a real increment in mental hygiene work and the mental hygiene clinics could be conducted in conjunction with the Baby Keep Well Stations, and similar activities. We would perhaps be satisfied to get along without the word *mental* hygiene which still smacks a bit of doing something for insanity. Just as the doctor who is dealing with the child, no matter what he comes to him for, attempts to get that child's environment, attempts to learn from the mother how that child acts, so the mental hygiene can be, and is in competent hands, made just as much a part of the handling of any child that comes to a pediatrician's office. If we can arouse more fully the interest of doctors in this phase of medicine; if we can give more instruction to nurses along this line and make them more enthusiastic about it just as we have in the prevention of diarrhea, I think we can have much additional machinery without much trouble or thought.

Dr. C. Englander (Newark): I do not think any one would question the value of a mental hygiene clinic in any community that can afford it, nor would it necessarily be said that communities could not coöperate jointly to maintain a central organization for that purpose, but as Dr. Levy has just pointed out, coöperation with other agencies is a desirable thing where it can be secured. This work with the pre-school child is essentially a new thing so far as the application of present day knowledge is concerned, and the educational feature of the clinic is perhaps even more fundamentally important today as far as training people to think in terms of mental hygiene—even if Dr. Levy does not like the word. We cannot have good physical hygiene without good mental hygiene, and vice versa. It is essential in organizations like Dr. Plant's to spend a great deal of time doing educational work. Just how the educational features can be brought about depend upon the financial condition of the community and the time devoted to this work.

But let us look at the other side of the picture. For 18 years Dr. Healy and those whom he has trained have been preaching the doctrine of mental hygiene in children, and while I do not want to create the impression that I am anxious to critlcize pediatricians, I do know definitely that very few of them ever visit mental hygiene clinics for children. They are usually too overcrowded with work and too busy writing formulas for diets to spend time trying to get the background of the child's family life. This is equally true in the home that is supposedly a good home, not necessarily the one that is supposed to have poor environments. I have in mind a thing that happened in the office of a very eminent pediatrician. The child was brought to him with the problem of feeding and some minor conduct problems which revolved chiefly about the home life of the family. This eminent gentleman inside of 15 minutes had given the dictum—"take this child away from the home to the seashore or country and give the child a new environment". I know the family very well. He took no opportunity to determine the nature of that child's mother, nor how much the father took part in the boy's life, and still he had issued this dictum. Try to get the young pediatricians to attend the mental clinics for a period of time and see how many of them will be willing to grant the time. There are very few of them who do more than read a few of the things that are published in the journals on the mental aspect of childhood and they immediately form some concept of it and try to put it in use in 3 or 4 minutes' discussion with the parents in the office. If they would come to clinics such as Dr. Plant conducts and talk over the problems presented there, then go back home and apply some of these things in the time that they spend writing formulas, much more would be gained.

I feel that the work done by Dr. Plant in New Jersey has shown real value. If you cannot get the psychiatrists to come to the other communities and do this work, you might get some good pediatricians interested, but I think we should carry home to our communities the fact that the mental aspect of the child can be handled more successfully in the clinic than it is today.

Dr. Joseph H. Marcus (Atlantic City): The thoughts and procedures outlined by Dr. Plant have been founded on well defined principles and reactions of the maladjusted child. Whether the present attitude of the child is the result of heredity or environment or a combination of both, matters not at this time. After conception has taken place, heredity has already performed its worst or best function and environment must of necessity occupy our attention. How frequently are we confronted with the negative type of child who is brought to us with the lament of the overwrought mother that her boy "does not eat well and consequently does not gain"? Appetite and digestion depend not only upon the physical constitution but upon the thoughts and emotions as well. Let us analyze the mechanism of emotion, and not be indifferent.

Dr. Plant has presented to us the basic foundation in the establishment of Mental Hygiene Clinics where the child, parents and environment may all be given due and thorough consideration and adjustments suggested and outlined where indicated. I feel that it is highly important to secure the coöperation of the physician, especially one who is acquainted with the home surroundings. Invaluable information can thus be transmitted by such collaboration. It is obvious to all that organic conditions can be causative factors in abnormal mental and physical reactions in the child and our first duty should of necessity be the removal of all irritant factors, physical in character. We are about to establish a Mental Hygiene Clinic at the Atlantic City Hospital and under the indirect supervision of the state; with a local psychiatrist in charge.

Dr. F. C. Johnson (New Brunswick): I would like to state my experience in trying to improve myself in the psychiatric viewpoint. I visited a very well known clinic in Philadelphia and asked about the advisability of improving my technic and method of approach. They said, we have no arrangement for postgraduate study and it would be very difficult and take a long time for a pediatrist to learn this. I went to New Haven and found the same condition. Probably a good many physicians would be glad to attend such clinics as Dr. Plant is conducting if they were allowed to do so. I think it would be very helpful and instructive. The pediatrist is naturally the one who sees the case in its earliest stages and most of us recognize that the damage is done by an outside influence, often an adult one, so that it is evidently a problem of adult medicine. The doctor in charge of the case should deliver good parents to a pediatrician. That most excellent magazine "Chil-

dren" is now being changed to a parents' magazine and it certainly is the parent on whom the pediatrician can make his diagnosis, but immediately he loses the patient. The mother knows the trouble is due to Johnny and not to her, and that is the end of it.

Dr. James S. Plant (Newark): I have divided more or less distinctly what has been said in 2 parts:

(1) What I sense, on the whole, to be an appreciation and acceptance of the general ideas that were put forward in the paper. I am extremely grateful for that. It was very courteous of you to listen to this recital of what we are doing. I thank you.

(2) A discussion of the problems which the paper raised. For many of your questions I have no answer. To a large extent they are still questions in my own mind. May I ask that you consider these closing remarks as in no sense final statements but as some indication as to how far, at the present moment, I have myself gotten in thinking over these matters.

As to the prevention side of the work may I again stress that we are not offering any panacea and that I have no very clear idea that we are doing *any* prevention. Those of us who have worked in mental hospitals feel the tremendous burden that is the taxpayers and psychiatrists in that constant stream of end-products. This is just as true of the courts. It is then only natural that we should say: "Let us go back to the children to try to correct these defects." Now that we are doing that we find that we must go back to the parents again! I want to give you very definitely the idea that we are *trying* all these means of getting at this question of unhappiness. Perhaps in a few years we will come with a different approach.

Dr. Spence emphasized the expense of the hospital. May I reëmphasize this? When you build a hospital or when you build a jail you have—over and above all the sickness you built it for—a *capital* expenditure, an incubus you must carry along. A clinic is much more mobile—at any time that we find it an unwise idea we can close it—there is not a predetermined expensive capital expenditure to hold us.

As to further development of clinics, I am very much of a conservative. From what I have said you will realize how tentative I feel as to what we can accomplish. This is very deeply a question of personnel. It would be very easy to develop clinics too rapidly, and without the right sort of persons to head them. It is a real pleasure to find you so interested in investigating the clinic idea but I hope you will go very slowly in this development. It is a nice toy to play with, has a real nice name, one that appears elegantly on paper, but there is this great danger of overreaching ourselves.

Dr. Levy spoke of something that is very close to my heart. If you men had any conception of my envy on going into certain school rooms or doctor's offices or in seeing the work done by certain nurses (the finest kind of psychiatry) I am quite sure you would see to what extent I agree with Dr. Levy. Psychiatry is being practiced today by a great number of physicians. All that the clinic should do—and I am very glad that Dr. Levy and Dr. Englander emphasized this—is to act as a sort of central "clearing house" where these matters may be worked over. May I give an example? One of the most interesting things we are carrying on is a little meeting every other week with the kindergarten teachers of East Orange; I get much more from them than they do from me. I get the practical things which they are doing and all I do is to more or less formalize their work and try to construct, with them, general principles. Of course we should teach the nurses and teachers. They are doing fine pieces of psychiatry; as are innumerable parents. We are doing just as much of this lecturing as possible, practically every day of the week.

Dr. Englander is bringing up practically the same point as to the pediatrician. Of course, we are doing a type of "research" work which the pediatrician cannot practice with any hope of making a living. This is due to the public support of the clinic. On the other hand we must not forget that there are a great number of pediatricians who are practicing good psychiatry. Maybe they do not always call it by just that name, but it's psychiatry just the same. May I say, in appreciation, that the pediatricians in Essex County have given us the most courteous treatment and that we have had the finest kind of support from them—much better, I think, than we deserve.

As to Dr. Johnson's criticism, I feel just as keenly as does he that we go about asking the people to learn about mental hygiene and that when you come to our clinics we say that you are not properly equipped to know precisely what we are begging you to "learn". It is a very difficult question. Yet it seems to me to be similar to the picture of the surgeon coming some afternoon to your office to say: "Do you care if I learn all about pediatrics this afternoon?" You see we, too, have a specialty—one that requires long preparation. Without any criticism of the Philadelphia Clinic I think it is fair to say that it is more occupied with what I have, in the body of the paper, called the "clinical" function. I believe that the Essex County Clinic is the only one that has devoted itself so largely to the "teaching" function. This does not mean that in a little while we can make a mental hygienist out of a pediatrician, initiating him into all of the work. It does mean that we are trying to coördinate all of this mental hygiene movement in the community and "bring it down to earth"—getting it away from all those terrible terms into something that we can really talk about. I do feel very keenly, however, that as yet we are not doing the job with the general practitioner that we should be doing.

As to the question of the expense of placing these clinics elsewhere in the state. We are carrying out a little experiment in Essex County, a part of which is quite distinctly rural. Perhaps in 2 more years we can talk in a practical manner of the feasibility of these clinics in rural areas. The economic questions involved I am not prepared to answer as yet. At the present time the clinics must be supported by large industrial or well concentrated areas; in 2 years, perhaps, you will let me come back to give our actual experience in the more rural areas.

Dr. E. C. Jackson (East Orange): I want to thank Dr. Plant for a very illuminating paper. I think we would be very remiss in this Section if after hearing a paper of that kind and hearing Dr. Spence say that it is a job of the magnitude that we all doubtless recognize, if we do not attempt to do something about it. It is a big job and I wonder whether the Section would feel it worth while to appoint a Committee from this Section to study as far as they can during the next

year—together with those who know most about it, such men as Dr. Plant—the situation and see if there is anything we can do as a Section to start work along this particular line. I, therefore, make a motion that the Chair appoint such a Committee.

Dr. Clarence W. Way (Sea Isle City): I second Dr. Jackson's motion.

In my work as attending physician at the Woodbine, having 350 patients in our institution, we are very interested in this work in general but we find that the formation of a clinic such as has been suggested would be prohibitive because of the cost, but we are using our county nurse for all feeble-minded children. They are visited by the nurse and are looked after without exception, but the clinic at present is beyond what we can stand financially. I think the subject should be studied along the lines suggested and that a Committee should be appointed for this purpose.

This motion was carried and the President appointed the following committee: E. C. Jackson, Chairman; C. C. Beling, Henry Spence, and Julius Levy.

CONGENITAL SYPHILIS*

Julius Heilbrunn, M.D.,

Jersey City, N. J.

Instructor of Pediatrics, New York Post-Graduate Hospital and Medical School; Attending Pediatrist, Christ Hospital, Jersey City, New Jersey

A thorough discussion of congenital lues would require more time than the scientific session this morning permits. I shall endeavor to present the most essential facts in a concise manner with special reference to treatment.

It is an interesting fact to note that 10% of all marriages are sterile and 20 to 30% of marriages in which one or the other is luetic are sterile. Of the remaining 70% of syphilitic marriages, a large portion result in either miscarriage or still-births. Of all fetal deaths 25% are due to syphilis. The mortality for syphilitic infants is 302 as compared to 150 for non-syphilitic infants. Only 16.6% of children of syphilitic parents escape infection, while non-syphilitic marriages yield 75% of living healthy children. Thus syphilis levies a heavy cost upon a community, to say nothing of the mental and physical defects for which the disease is responsible.

Syphilis is directly transmitted to the offspring by the blood of the mother, and to bear a syphilitic child she herself must be a syphilitic. This is in contradiction to the law of Colles. However, a syphilitic mother may bear a non-syphilitic child if under treatment during pregnancy.

The cause of syphilis, the treponema pallidum discovered in 1905 by Schaudinn, is best demonstrated in the tissues of the syphilitic fetus. The disease is a septicemia produced by blood stream infection from the placenta, as is proved by the fact that the most marked and constant pathology is found in those organs intimately associated with fetal circulation, especially the liver.

The pathology is a productive inflammation, hyperplasia of connective tissue with resultant hypoplasia of parenchyma of the various organs. This hypoplasia interferes with visceral growth and development, and we find not uncommonly embryonal structures in the organs affected. The spleen shows hypertrophy in 90% of cases. It enlarges to 4 or 5 times its size and may show gummas in late cases. The liver is enlarged in the early stages. Later, scarring takes place and the cut surface shows yellowish white spots, the so-called miliary gumma of Virchow. The stomach and intestines show lesions in association with more severe lesions in other organs. The meconium contains many spirochetes, as do the adrenals. The kidneys may present the picture of interstitial nephritis. The testicles frequently are enlarged and may suppurate. Later they become small and knotty. The lungs are involved in 50% of cases coming to autopsy, but show very little change in older children. The "pneumonia alba" of Virchow is seen without exception in the still-born syphilitic. The heart is rarely involved. The blood vessels show a periarteritis in contrast to the endarteritis in acquired lues. The bones are the seat of lesions most frequently, showing osteochondritis and periostitis. The former occurs in the still-born; the latter may occur early but is usually a "late" lesion. Osteochondritis is most com-

---

*(Read before the Pediatric Section of the Medical Society of New Jersey, at the 163rd annual meeting, held at Atlantic City, June 13, 1929.)

monly found in the lower end of the humerus and femur and upper end of the tibia and sometimes causes subluxation. The skin and mucous membranes show little pathologically but much clinically. Rhinitis may cause cartilaginous and bony destruction in the nose; producing the saddle nose seen later. Ulcerations of mucocutaneous junctions result in scars. Adenopathy is a constant but not specific result. The central nervous system shows much pathologically. About 1/3 of both infants and children show spinal fluid changes resembling acquired syphilis. Serous meningitis, pachymeningitis hemorrhagica and basilar meningitis may cause hydrocephalus. Cord changes are less frequent. Of the special sense organs, the eye changes are most common. Iritis and choroido-retinitis are frequent. Optic neuritis is rare in infancy and older children. The most common eye pathology is keratitis.

Symptomatology

For convenience of description, congenital syphilis may be divided into symptoms of infantile, latent and late; 50% of cases show symptoms in the first month, occasionally they may be delayed until the fourth month. The outstanding symptoms are rhinitis, so-called "snuffles", cutaneous eruptions, enlarged spleen and bone changes. Rhinitis may be accompanied by a sanguineous discharge. Cutaneous eruptions are both generalized and circumscribed. Generalized eruptions consist of an exfoliative dermatitis, especially on the hands and feet, leaving a shiny skin underneath, distinctly red or ham-colored. Infiltration in the cheeks may be the start of ulcerations which leave deep linear scars radiating from the mouth. These scars or rhagades are almost pathognomonic of active syphilis at infancy. The circumscribed eruptions may arise from an infiltrated area or from apparently normal skin. They consist of maculopapular syphilides, papulopustular syphilides, condylomas and mucous patches. Pemphigus neonatorum is present practically only at birth and if syphilitic is nearly always fatal. Enlarged spleen and liver is a constant symptom. An enlarged spleen and liver in an infant under four months old with an exudative diathesis usually spells syphilis or tuberculosis. Bone lesions are very common, consisting of osteochondritis and periostitis. Osteochondritis occurs chiefly at the junction of the epiphysis and shaft of long bones. The cranial bones are prone to show rachitic changes. Syphilitic bossing resulting from periostitis is common. Late union of sutures with resultant overgrowth of parietal bones produces the boat-shaped skull. Enlargement and hydrocephalus are common.

The latent period or period of inactivity is an unexplained chapter in hereditary lues. Freedom from symptoms is unaccounted for. It is during this period that the Wassermann test serves its greatest purpose.

Late congenital syphilis usually presents itself by the fifth year and it is unusual to find it delayed until the twelfth year. The order of frequency of symptoms are those involving the nervous system, eyes, bones, joints and mucous membranes of the nose and throat.

Eye changes are of 2 types: those due to inflammation in the eye itself, such as choroidoretinitis and keratitis; and those due to central nervous system lesions, such as strabismus, optic atrophy, choked disc and ocular palsy. Interstitial keratitis is most common and usually develops between the sixth and tenth years but may be seen as early as the third month. Keratitis, notched teeth, and deafness are known as the Hutchinson triad.

The typical lesion of the bones is chronic bilateral hyperplastic periostitis of the tibia, occurring about the fifth or sixth year and occasionally unassociated with any other lesion. The saber shin is caused by a regular fusiform symmetric enlargement producing an anterior bowing. These enlargements may be multiple, making the bone rough and nodular.

The joints are involved in but 10% of cases. The swelling is not painful and is usually associated with other findings, such as keratitis. Three types occur, simple hydrops, erosion of the cartilage and thickened synovial membranes plus effusion, and a type resembling arthritis deformans with involvement of the small joints. The knees are the most common site.

Lesions of the skin and mucous membranes are mostly gummatous. The thigh is the most common site. After ulceration, a large indolent, indurated ulcer is found. The mucous membranes involved are usually the soft palate, pharnyx, larynx and epiglottis.

One of the best known and striking symptoms is the so-called "Hutchinson's teeth", a notching of the upper central incisors of the second dentition; they occur in only 6% of cases and are not pathognomonic. Irregularly formed, peg-shaped teeth, unevenly spaced, occurring in deciduous or permanent teeth, are more commonly found.

Neurosyphilis occurs serologically in congenital lues in about 66% of cases in older children. Clinical evidence is less frequent than in acquired lues. The spinal fluid shows increased cells, albumin, globulin, a positive Wassermann and colloidal gold reaction. The nervous system symptoms are those due to meningitis causing convulsions or hydrocephalus. The convulsions are usually afebrile; occasionally there is but slight rigidity of the neck without convulsions. The cerebrospinal fluid resembles tuberculous meningitis except for the positive Wassermann and colloidal gold reaction. The cells number 100 to 300. Hydrocephalus may cause a marked degree of mental deficiency which as a rule yields to treatment. If it occurs early, arrest of the cortex growth is impaired, producing hopeless degrees of mental impairment. Extension of brain or meningeal lesions to the cranial nerves occurs, producing paralysis or sensory nerve involvement. Hemiplegia is the most frequent type of acquired paralysis due to lues. The paralysis is due to an encephalitis, is of the flaccid type and occurs late. Epilepsy is not common. Diminished reflexes and pupillary changes are common. Ataxia, gait disturbances and Romberg's sign are uncommon. The Argyll-Robertson pupil is a cardinal sign. Optic atrophy occurs early. Paresis is less frequent than tabes. This occurs usually at 12 to 16 years of age, and starts as a slow dementing process which in 3 or 4 years may result in a helpless idiot. Mental deficiency occurs in at least 50% of cases with clinical neurosyphilis.

In an analysis of 24 cases in the out-patient department of the N. Y. Post-Graduate Hospital, the history of still-births, miscarriages, or both, was present in 16, skin lesions and mucous membrane lesions prominent in 5, bone lesions in 3 and eye findings in 7 cases. Hutchinson's teeth were found in 1 case but irregularities of the teeth in 4 cases.

The Wassermann reaction finds its greatest value for diagnosis in hereditary lues. Almost 100% of late untreated cases are positive and 95% of untreated infants are positive. In very young infants, a negative test is fairly common and if the case is clinically suspicious, a second and third test should be made.

The prognosis of syphilis depends on many factors. The earlier the disease presents itself and the more severe the infection, the greater the mortality. Mortality is also dependent upon how early treatment is instituted. Nutrition is a great factor. Central nervous system is a most serious involvement. In infancy, very few have irreparably damaged nervous systems. Treatment finds its best results if instituted at infancy. The most serious sequels are found in late untreated cases, such as dementia, paralyses or optic atrophy. Late syphilis however is rarely fatal.

Treatment

Treatment of congenital syphilis may be considered under 2 headings; prophylactic and curative.

Prophylactic treatment of the parents offers more certainty and more ease of administration and while not sufficient to cure will at least prevent infection of the fetus, thereby reducing the possibility of death to the latter.

The drugs used in treating congenital lues are arsenic, mercury or its salts, bismuth or its salts, and the iodides. The intensity of the treatment with the various drugs should depend upon the severity of the infection as evidenced clinically. However, it must be remembered that very young infants with marked signs of active lues are poor risks for full doses frequently repeated at the beginning of their treatment.

Arsenic is used in the form of arsphenamin or neoarsphenamin. The latter is more easily

prepared and administered and may be given in the small amount required for syringe administration. Intravenous administration is the method of choice. Arsphenamin properly neutralized and given in similar small dilution is dangerous. Neoarsphenamin is administered in a dose of 15 mg. per kilo of body weight, in a dilution of 0.1 gram to 2 c.c. of cold, freshly sterilzed water. Cases of syphilis with involvement of the central nervous system should precede their treatment with arsenic by treatment with mercury in order to avoid a Herxheimer reaction in the nervous system. Intramuscular injections of neoarsphenamin are very painful and occasionally cause sloughing. The preparation of choice for intramuscular injection is sulpharsphenamin (Squibb). The dosage is 15 mg. per kilo of body weight dissolved in 0.5 to 1 c.c. of sterile distilled water.

Arsenic alone does not replace other drugs in treatment. It must be used in association with mercury in order to produce more permanent results and the latter must be given in such manner as to allow of sufficient absorption and with no damage to the patient. It may be given by mouth, intramuscularly or by inunction. By mouth the best preparation is "gray powder" in tablet form, 1/5 gr. twice daily for the young infant to 2 gr. or more 3 times a day for older children. Catharsis should be avoided. Intramuscularly, mercuric chloride in oil 1/10 or ¼ gr. according to age, (1/10 gr. under 6 yrs. and ¼ gr. over 6.) Bichloride of mercury in doses of ½ minim. of a 1% solution, per kilo of body weight may likewise be used intramuscularly. By inunction, mercury is best given as metallic mercury in an ointment base, in doses of 1 to 4 gm. daily and using different parts of the body to avoid irritation. Intensive mercury treatment may cause albuminuria, which disappears during the rest period.

Cerebrospinal lues, manifested clinically or serologically, usually clears up in early cases by systematic treatment. Intraspinal treatment is indicated in those cases which after 6 months of systematic treatment show no improvement either clinically or serologically. There is a question of doubt as to its value but the weight of evidence favors its use. Direct administration of arsphenamin or neoarsphenamin into the subarachnoid space is fraught with considerable danger. Arsphenaminized serum, in vitro or in vivo, is much less irritating and quite safe in proper dosage. Serum from blood withdrawn ½ hour after intravenous administration contains about .023 mg. per c.c. The amount of serum given depends upon the amount withdrawn. According to the age of the child, it varies from 10 to 30 c.c. Inactivation of the serum at 56° C. increases its efficiency. The serum thus arsphenaminized may be further augmented in its efficiency by adding more of the drug or the entire dose may be added to the serum in vitro. The intraspinal treatment may be repeated in 5 to 10 days according to the amount of reaction from the treatments; 3 to 5 injections may be made to a series. Intraspinal treatment is rendered more efficacious when associated with intravenous therapy. Reactions, such as marked redness of the face, sometimes marked cyanosis, may occur during the injection or immediately after. Severe reactions are characterized by swollen lips, injected conjunctiva, lachrymation and anxious expression of the face. Nausea, vomiting, and retching, followed by profuse sweating may occur. There may be a feeling of suffocation, air hunger, respiratory embarrassment and dyspnea. The reaction subsides in 15 or 30 minutes and may be aborted or prevented by the intramuscular injection of epinephrin. Another group of symptoms may appear a few hours after the administration and last 12 to 24 hours.

Grulee, Sanford and Waldo describe the intraperitoneal injection of neoarsphenamin in 25 cases with 70% cures, 17% improvement and 14% deaths. Of the latter, 4% died as a result of treatment. Thus, if faulty technic is used, the treatment is not without danger. They indicate its use where rapidity of action is desired and the small veins make intravenous therapy impossible.

Since 1922, bismuth has been reported in use for treating congenital lues. For this purpose, it is used for intramuscular injections only and is dispensed in aqueous solu-

tion of its salts, colloidal suspensions of bismuth and oily suspensions of bismuth salts. While certain salts of bismuth may be soluble in water, such as the tartrate, citrate and galactate, they are insoluble in the tissue fluids and consequently remain in the tissues at the site of injection for a considerable length of time, producing local irritation and pain. This irritation may result in slight tissue necrosis or even abscess formation. Considerable scientific work has been done in this field by various commercial concerns and after a careful study, it seems logical to assume that the best preparation is one which is both water and tissue soluble. For this purpose, I might mention the preparation known as thio-bismol (Park, Davis & Co.). The dosage will depend upon weight, averaging about 1.35 to 2 mg. per kilo. The salicylate of bismuth is probably somewhat less irritating than the tartrate. Potassium bismuth tartrate has in my experience produced no evidence of local irritation. This is an Abbott preparation suspended in oil. In using preparations of bismuth, the pain is due to the corrosive action of the metal in the cutaneous and subcutaneous tissues. The technic of introducing air into the tract of injection followed by gentle massage over the gluteal region into which the injection is given eliminates after-pain. Bismuth is particularly indicated in cases showing an intolerance to arsenic and is in general indicated in cases having fixed Wassermann reactions. It is usually well tolerated by children.

A preparation of growing popularity is that of bismuth sodium tartrate in aqueous solution (Searle & Co.). While the bismuth content is comparatively small the preparation offers its advantage of ease of administration, lack of pain following it and the safety from damage to the kidney because of small dosage. It is wiser to administer bismuth in small doses over a longer period of time than to administer larger doses over a shorter period.

The iodides are of less value in congenital than acquired lues. The pain of periostitis is very promptly relieved by them. The dose is 3 to 7.5 grains.

In summarizing the treatment of congenital lues, it may be well said that we must treat the individual having the disease rather than the disease itself; i. e., each case as far as treatment is concerned is a personal equation. The factors determining our treatment are: (1) Severity of the infection as evidenced clinically. (2) Age of the patient and size of the veins. (3) Success of treatment after a reasonable period of trial.

Thus it is apparent that no fixed line of treatment is available but that suggested by Bronson seems most practicable and most generally applicable: (a) 6 weeks of medication with mercury in the form of daily inunctions of blue ointment (U.S.P.) or weekly injections of mercuric chloride in oil 1/10 to ¼ gr.; (b) 6 weeks of arsenic, weekly injections of neoarsphenamin or sulpharsphenamin; (c) 6 to 10 weekly injections of bismuth; (d) rest period of 4 weeks. Wassermann tests are made at the end of each rest period.

The questions arise as to what we can accomplish in the treatment of congenital lues and when should we consider a case cured? It is possible to effect a serologic cure or permanently negative Wassermann in many cases, which means death to all spirochetes or at least their inactivity. However, the disease is still present from a standpoint of pathology and a blind or mentally defective child may be a permanent result. An infection treated early is more easily eradicated than one treated late. It is scarcely safe to treat an infant for less than 1 year and an older child for less than 2 years, regardless of Wassermann reactions. If either blood or spinal fluid is positive, treatment should be continued until both are negative. Observations should be made for several years. Once the spinal fluid is negative, as a rule it remains negative. All treatment should be discontinued at least for 2 weeks prior to taking blood for Wassermann reactions.

Discussion

Dr. S. A. Levinsohn (Paterson): Dr. Heilbrunn did not mention a recent development in the treatment of congenital syphilis. About 3 years ago, while in Europe, I found an old preparation of Ehrlich's, known as stovarsol, was being used. It was originally intended to be administered intravenously but was found to be too toxic. When re-

vived a few years ago, it proved to be very useful when administered by mouth. Leiner, in Vienna, was very enthusiastic about it. We know that the best treatment for congenital syphilis is a combination of arsenic and mercury and that the administration of arsenic in very young children is difficult, especially if it has to be repeated every week as it should be. There has been a search for something that could be given by mouth and still be effective. I know that the signs of open syphilis and the cutaneous lesions clear up when stovarsol is administered by mouth. It is tasteless and if properly controlled, produces no reactions and there is but little danger of overdosage. It will carry the child along at any rate until it is in better shape for treatment, so that there is little danger afterward in using mercury and neosalvarsan intramuscularly and intravenously. I think stovarsol merits a trial.

PHACOËRISIS*

Isaac Hartshorne, M.D., F.A.C.S.,
New York City

On December 21, 1925, and again on January 21, 1929, I presented reports on intracapsular extraction of cataracts with the Green apparatus. This report contains a detailed routine of surgical technic to show the changes in procedure that have been made in the effort to perfect an operation which any experienced eye surgeon can master. It also contains a statement of results to date of the eyes operated upon, but is not intended to show percentages of success or failure which are of no value in so small a number of cases.

Daviel's early attempts to extract cataracts were intended to be intracapsular, but because of capsule rupture he developed instead the classical capsulotomy operation which with modifications is the operation of necessity of today. Through the years to follow Daviel's work, the progress of intracapsular surgery by MacNamara, Wright, Smith, Holland and others is well known to you all. In more recent times the constantly growing field of intracapsular operators includes the names of Vail, Fischer, A. Knapp, Barraquer, the Green brothers, Verhoeff, Lancaster, Elschnig, Meding, MacLean and many others. Each of these men has injected his own surgical personality into the operation of his choice in such way that no two of them are using exactly the same technic, although following the same procedure, i. e., removal of the lens as a whole in its capsule. Most of these men have spent time in India or Barcelona to learn first hand the technic of the 2 greatest masters of the 2 types of intracapsular operation in use: Smith and Barraquer. As such expenditure of time is not practicable for the average eye surgeon, it has seemed advisable to develop an operation that can be mastered at home by one's own efforts on animal eyes.

There have arisen of late 2 groups in ophthalmic surgery, namely: Pro-capsulotomy and Pro-intracapsular. The contentions of each group have been set down before and are well known to you. The capsulotomy group is gradually being converted to the intracapsular side through the surgical successes of the latter and the underlying conviction that to remove the whole lens and capsule must be a better surgical procedure than to leave behind material that produces postoperative iritis and secondary glaucoma and endophthalmitis due to toxemia from susceptibility to soft lens matter. The advantages to the patient are quite marked: Risk of postoperative inflammation reduced to a minimum; shorter hospitalization; seldom any further necessity for needling; and above all, removal of the unripe cataract being easier than that of the ripe, the patient can be saved from 3 to 5 or more years of waiting. An intracapsular operation can readily be performed as soon as vision has fallen below that necessary for orientation or for useful occupation, and so will keep the patient on the active list instead of being shelved. This I have done a number of times and have also operated on the second eye having 20/50 vision, with resulting 20/20 vision, and so avoided the disagreeable diplopia from monocular cataract removal.

Those who have tried to do any one of the intracapsular operations and been unsuccessful have failed because of lack of sufficient animal experimentation before beginning on the human eye. Also, they may have tried to do a type of intracapsular operation not suited to their own surgical personality. The

*(Read before the Section on Ophthalmology, Otology and Rhinolaryngology of the New Jersey Medical Society at Atlantic City, June 13, 1929.)

selection and training of one's assistant is just as important as choosing the right type of operation. The assistant faces the eye from a different angle than the operator and can often be of great help in calling immediate attention to something in the progress of the operation which the operator does not see. I constantly grow more dependent upon the suggestions made by my assistant during the operation. I feel very strongly that the faithful "team-work" that Dr. Charles Littwin has given me in all of these operations has contributed very largely to the success obtained.

To extract the lens in capsule by taking hold of it with a vacuum or pneumatic forceps and using a suction pump has always seemed to me to be mechanically more practical, safer and easier to master than to express the lens as by the Smith method. The former appears to be less traumatic to the eye and for me, at least, was much easier to learn. This method was originated by Dr. Vard Hulen, of San Francisco, and developed by Professor Barraquer, of Barcelona, Spain. Drs. Aaron and Louis Green, of San Francisco, being good mechanical operators, first went to India and mastered the Smith operation and later went to Barcelona and learned the Barraquer method. They soon found the Barraquer method impracticable both as to the uncertainty of the pump and the clumsiness of the pneumatic forceps. The apparatus which they developed—a suction pump running in oil, producing the necessary degree of vacuum and never getting out of order, controlled by a foot valve which at the same time controls the electric current to run the pump, and a small, light weight, easily handled pneumatic forceps—is mechanically and surgically excellent. I therefore selected the Green modification of the Barraquer operation as the one to learn. The full Green apparatus can be procured from Mueller in Chicago. For animal experimentation I used kittens 8 weeks old—killed with chloroform, and their eyes enucleated and placed in the Fisher operating mask. Pig's and sheep's eyes cannot be satisfactoriy employed because the zonule will not rupture. At least 50 operations were done in this way before any human eyes were attempted. I then spent 10 days with Dr. Louis Green in San Francisco, whose courtesy and patience I greatly appreciate.

The pitfalls and possible complications with any intracapsular operation, especially in relation to avoiding loss of vitreous, require the urgent exhortation that, lacking a trip to India, no operator should undertake this procedure until he has had at least 5 years of ophthalmic operative experience.

While I began this work as experimental surgery at St. Luke's Hospital, we now consider the experimental stage as passed. My colleague, Dr. Alfred Wiener, has been good enough to say that the operation as now developed is an ideal intracapsular extraction.

The operation I am doing is neither the Barraquer nor the Green, although it includes features of both. I am using the Green apparatus and consider it excellent. It seems much less clumsy, and the combined foot control of electric current and vacuum is of great advantage, particularly if the operator has his own foot control developed by driving an automobile. There are several steps of the Green operation that I would criticize and have therefore changed:

(1) *Iridectomy.* In my hands, iridectomy at the time of operation has usually resulted in a drawn up pupil, and appears to be a source of greater trauma to the eye than doing a preliminary iridectomy. In those cases in which I have done a preliminary iridectomy a better pupil has resulted and it appears to be easier on the patient as well as easier for the operator to extract the lens in capsule than by the combined operation. I have not tried the peripheral buttonhole iridectomy of Hess, used by Barraquer, because I have been afraid of catching the iris with the vacuum forceps, and also because the buttonhole iridectomy necessitates removing the lens by tumbling instead of by direct extraction.

A number of general surgical procedures are done in two stages because better results are obtained. While, therefore, it can be done in one stage, I believe in the preliminary iridectomy because I thus get better results.

(2) *Control of the eyeball and lids.* In my first 20 cases I used the deep intra-orbital novocain anesthesia as set down by the Greens, including anesthesia of the lids, and when made necessary by small palpebral fissure I have done an external canthotomy. This anesthesia prevents the patient's looking down, but does not prevent his suddenly looking up, because the anesthesia is introduced along the floor of the orbit and affects the inferior more than the superior rectus. Two of my patients lost each a slight amount of vitreous after a perfect extraction because they suddenly looked up before I could close the eye. This is probably why the Greens are so emphatic in saying that the eye must be closed instantly after extraction has been completed, and no after-toilet is attempted by them. This would seem to leave the operation unfinished and the necessity for it is a weakness. To obviate this difficulty I have been using a superior rectus control suture held by the assistant who holds the Green lid speculum. This suture Dr. Wiener and I have been using in all cataract operations at St. Luke's Hospital for some time past and he is planning to report on its value at some future time. Suffice it to say here that use of this suture gives good control of the globe during extraction. The suture also pulls in such a way as to tend to keep the vitreous in the globe and prevent its escape.

Most operators advise against anesthesia by deep intra-orbital injections. The Greens are so insistent about its necessity that I was afraid to attempt the operation without it. After using it 20 times, I became absolutely opposed to intra-orbital anesthesia and would give up this type of operation rather than continue its use. One eye I had to remove 1 year after extraction in spite of 20/50 vision, because of constant pain. I found here the unabsorbed remains of a large retrobulbar hematoma. A number of patients had marked ptosis lasting several months. Without exception the patients said afterward that the only part of the operation that was unpleasant was use of the long needle inserted into the orbit. Wright advises both deep intra-orbital and facial nerve anesthesia. Barraquer, Fisher, MacLean and others advise use of the same anesthesia as for capsulotomy extraction plus anesthesia of the orbicularis. I am now proceeding successfully without deep intra-orbital injections.

(3) *Graefe incision is very important.* It must be large enough and should include the upper 2/3 of the cornea. It should be at the corneoscleral margin throughout and the knife must be very sharp.

(4) *Extraction of the lens in capsule.* The Greens use a special pair of forceps having a curved end with a knob on the back of the curve, in the left hand, and the vacuum forceps in the right hand. With the left hand forceps the cornea is raised so that the vacuum forceps can be slipped into the anterior chamber. The knob on the back of these forceps is then used to produce pressure below the cornea to assist in rupturing the zonule. The lens is drawn upward, keeping the posterior surface in contact with the posterior edge of the corneoscleral wound, and thus extracted. I have disliked use of this instrument for raising the cornea since it bends the cornea forward as if on a hinge at the base of the Graefe incision. Also I have not liked use of the knob for pressure as it is too localized and does not give a means of controlling the wound after the lens has been extracted. I have been using the double instrument—Fisher needle and Smith spoon. With the needle the edge of the cornea can be easily elevated sufficiently to permit introduction of the vacuum forceps without taking hold of the cornea or bending it on a hinge, and therefore with less trauma; while the pneumatic forceps is then being slid into place and the vacuum produced, this instrument is turned end for end in the left hand and the edge of the Smith spoon is used to produce very slight pressure below the cornea to assist in breaking the zonule. If the lens is successfully extracted in capsule with the vacuum cup, the flat of the spoon follows to the edge of the corneoscleral wound and holds the wound closed after the extraction. The assistant then instantly removes the speculum and closes the eye, and it is kept closed for a few minutes; and then I lift the lid with a muscle

hook to complete the after-toilet. If the vacuum cup slips off twice, I do not attempt to attach it again but remove the lens with the wire loop.

(5) *Vitreous.* While the loss of vitreous has apparently had no effect on after-results, of course it is our desire to avoid it. No vitreous presented before the lens was extracted except in two cases, so that the vacuum cup was removed and the lens extracted with the wire loop. In the 2 other cases in which 1/3 of the vitreous was lost this accident was possibly due to too much pressure with the left hand below the cornea, although Wright says that this type of loss of vitreous is due to choroidal hemorrhage.

(6) *Conjunctival flap.* Barraquer and his followers use a conjunctival bridge flap. The Greens distinctly advise against any flap because of the extra manipulation necessary and because their technic calls for immediate closing of the eye after extraction. In following the Green technic I have had considerable difficulty with a number of patients in the slowness of wound healing. Each of these cases ended successfully but necessitated painting the wound with 1% silver nitrate daily for several days. While this does no harm, it is a weakness. The Greens keep such eyes closed for 10 days, which I have been unable to do, either because of itching or discomfort due to dry lids or to nervousness on the part of the patient on being shut up so long. Mine have all been dressed in 4 or 5 days. This may be one reason why my wounds have not been fully healed. Doubtless the direct contact between vitreous and wound has something to do with this slowness in healing. A conjunctival bridge helps this situation but does not prevent it, as in one case where a sneeze 4 days after operation broke open the wound and produced prolapses of iris and vitreous which were reduced after pulling down a conjunctival flap; with excellent end-results. This complication set me to seeking the right conjunctival flap for such cases. The making of a conjunctival bridge is apt to be uncertain in its regularity even if the bulbar conjunctiva is undermined with cocain. The use of Berens' untied suture is dependent upon a large conjunctival bridge and such a bridge is in the way during extraction with the vacuum forceps. I have tried it.

In the ophthalmologic Department of St. Luke's Hospital, Wiener and I, after experimentation, have adopted the Van Lint flap in all of our cataract operations, and it works particularly well in this modification of the Barraquer-Green operation. After the lens has been extracted and while the upper lid is held back with a muscle hook and the iris pillars have been replaced, if necessary, the flap is lifted down over the corneal wound and the corners are tied to their anchorage; an iris repositor is slid horizontally along the corneoscleral wound under the flap to insure close coaptation between the cornea and sclera. With this flap an elderly patient can be allowed up in a chair 24-48 hours after operation.

Another point of dissatisfaction in the Green technic is use of the special pasteboard mask, held in place with adhesive plaster. This mask has the advantage of being more comfortable than the regular black Ring mask customarily used, but it has not seemed to hold the eyes tightly enough and may therefore have been a contributing cause of failure of the wounds to heal. I am now using the regular Knapp dressing with 3 strips of adhesive over each eye, covered with a light firm bandage over both eyes and a small amount of cotton fluff outside of the bandage; all held in place with the Ring mask cut to fit the face of the patient.

(7) *Preparation of the patient.* Prior to all cataract extractions at St. Luke's Hospital we attend to Dr. Bell's three T's—teeth, tonsils and toxemia—and include the blood pressure and blood sugar. The patient is put into as nearly A-1 condition as possible before operation is begun. This practically eliminates postoperative intra-ocular infection.

The iridectomy has been performed at a previous visit to the hospital, at least 2 weeks prior to the extraction. On entrance to the hospital, 24 hours before extraction, the patient is given a tub bath and put to bed. Culture is taken from each eye; blood pressure and tension of each eye are taken and re-

corded; blood specimen for sugar test; urinalysis; general physical examination. Light supper, light breakfast, no lunch (we operate at 2 p. m.). At 9 p. m. castor oil ½ oz. and if not satisfactory results suds enema the next morning.

During this 24 hours before operation the patient is given 2 doses of luminol 1½ gr. each; and 1% atropin sulphate solution and 1% mercurochrome solution are instilled 3 times into the eye. During the forenoon, the face is washed with soap and water and wiped with alcohol and ether, the lashes of the upper lid are cut and the eyebrow painted with one-half strength iodin and covered with a collodion gauze dressing; the eye is covered with a gauze wipe held by adhesive straps. One-half hour before operating the eyelids are injected with about 3 c.c. 2% novocain and adrenalin.

During the last 6 months Wiener and I have been experimenting with the giving of morphin gr. 1/6 and scopolamin gr. 1/200 subcutaneously ½ hour before the operation, and we like the benefit of this additional control of the patient. We have, so far, had no vomiting or other untoward effects from its use.

On the operating table, the hair having been covered with a sterile towel, the orbit, cheek and forehead of the to-be-operated upon side are painted with 2% mercurochrome; cocain 4% and adrenalin 1:1000 are instilled into the eye several times; the conjunctival sac is irrigated with boric acid solution; a gauze wipe pulled out and wrung in bichloride solution is placed across the mouth and nose of the patient and the head and shoulders covered with an eye operating sheet which has a 3 in. round hole to expose the field for operation. A few drops of 4% cocain are injected subconjunctivally above and below the margin of the cornea and the eye closed for 3-4 minutes before beginning the operation.

At first I selected the cases for operation, as to the age of the patient (never under 55) and as to the intra-ocular condition (no previous inflammation). I am now extending the selection to a much wider range, as is practiced by other intracapsular operators, and would now exclude as not safe for the intracapsular method, as follows: Very prominent eyeballs; the hypertonic or hypotonic eye; over-ripe cataract; posterior synechia, unless easily broken; dislocated lens; traumatic cataract; congenital cataract under (perhaps) 30 years of age.

It works particularly well in diabetics, which is fortunate as these patients seem to be especially sensitive to retained soft lens matter and also seem apt to develop secondary glaucoma when the capsule is not removed.

Koby and other slit-lamp experts have stated that there is no hyaloid membrane, but that a fine net work surrounds the vitreous. Arnold Knapp, in 1925, at the London Ophthalmological Conference, said: "In the pupillary area the vitreous usually presented in the form of a membrane distinctly seen with the slit lamp, so that it seems to me to be quite proper to speak of a hyaloid membrane." In 3 of my cases in which anterior and posterior capsules were definitely removed with the lens, there developed a distinct membrane on the anterior surface of the vitreous. In 1 case the membrane stopped above the lower margin of the pupil so that the patient sees through this small opening. In the second, a needling was performed. The third is to be needled in the near future.

The above modification of phacoërisis permits the operation to be performed as soon as vision has been reduced to the point where accustomed acts and occupation are interfered with. It avoids the retention of soft lens matter of the capsulotomy operation. It avoids the necessity for a needling operation, except in the rare case of thickening of the hyaloid membrane; seen in 2 cases. It reduces the risk of loss of vitreous to a minimum and produces a wound healed as solidly as by any other method of extraction. The after-care of these cases is reduced to a minimum in that they are not dressed for 4 or 5 days and no medication is needed other than a mild antiseptic ointment, except that I do use mercurocrome 1% at each dressing on account of the conjunctival flap suture. There is none of the postoperative circumcorneal injection that usually accompanies capsulotomy operations,

showing that the operation is less traumatic to the eye than other procedures.

Instead of deteriorating, these eyes improve with age and as the glasses are changed from time to time, the vision improves. I find less astigmatism than with capsulotomy extractions. During the last 2 years I have performed a number of capsulotomy extractions in which I afterward wished I had done a phacoërisis because of retained soft lens matter and 1 case of secondary glaucoma, due, I believe to capsule caught in the wound.

As before stated, I wish to express my gratitude to Dr. Alfred Wiener for his helpful suggestions and for permitting me to do this experimental surgery in the Eye Ward of St. Luke's Hospital and to Dr. Charles Littwin who has so ably assisted me in all these cases.

THE SIMPLE OPERATION FOR EXTRACTION OF CATARACT*

Elias J. Marsh, M.D.,
Paterson, N. J.

In any surgical procedure, the ideal method is the one which gives the desired result with the simplest operative technic, the least insult to the tissues, and the surest and easiest healing. The desired result in the extraction of cataract I take to be a clear pupil, normal in form and in action, in an eyeball deformed as little as possible. This is the ideal: the problem which has confronted surgeons since Daviel's day, and promises to do so for many a day to come, is how we may best attain this result in ordinary practice, or, if we may not attain it entirely, in what degree and in what way we should modify our ambition for the sake of securing the highest average of total achievement. That intracapsular extraction, *when successfully accomplished,* most completely fills the first half of our requirement, and that the so-called "simple" extraction, when likewise successfully accomplished, fills the other half, is not denied by anyone, so far as I am aware. The objection to these two methods arises from the relatively high percentage of failure to which each is subject, at least in the judgment of its critics. The first of these is not within the scope of the present paper: to the other, the "simple" extraction, or extraction without iridectomy, its indications and advantages, I ask your attention.

To ask or to state the "best" operation for cataract is on a level with a similar reference to the "best" treatment for pneumonia. No more than in pneumnoia is the same procedure applicable to all cases of cataract, and the surgeon who is limited to one operation is not in much better case than the physician who uses only spiritus frumenti, or only digitalis, or only an expectorant, in all of his pneumonias. Each of the latter will be followed by a fair percentage of detoxicated patients and a resolution of hepatized lung, and each of the former with a good many restorations of visual function, but neither will give the best that can be had. It may be that if one method is used exclusively it will give a larger percentage of success than another similarly used, but intelligent selection and adaptation to the particular case will give better results than either one. Limitation to one method marks the work of the surgical technician; selection of procedure the work of the surgeon. I do not advocate use of the simple operation in all cases, or even in most, but it has a use, and should be given a larger place than has recently been generally conceded to it. So brilliant and experienced an operator as Terrien says that the simple operation is the operation of choice, the combined the operation of necessity, and this position has recently been re-affirmed by Meding, of New York, in a paper to which reference will be made again. Without venturing to set the authority of my opinion beside theirs, I shall take the same position in the present discussion. The problem to be determined, then, is: what is the field of choice, and where are the limits of necessity.

In the many years that these 2 operations, or 2 forms of the operation, have been in use, about all that there is to say for and against

*(Read before the Section on Ophthalmology, Otology and Rhinolaryngology of the Medical Society of New Jersey, Atlantic City, June 13, 1929)

each has already been said—said well and with authority by operators of the highest skill and experience. For two-thirds of a century the pendulum of favor has swung back and forth. At present the simple operation is rather in disfavor, but it still has merits, it still has powerful advocates, and the pendulum may well make another swing, several more in fact, before a consensus of opinion is attained. The writer's own experience is of this very sort. My earliest operations, under the influence of the late Dr. Walter B. Johnson and others with whom I was associated, were all of the simple type, unless accident or necessity compelled a change. Later, influenced by the practice of the Knapp Hospital, with which I became connected, (although Herman Knapp himself, especially in his later years and the fulness of his vast experience returned to preference for the simple extraction), I did the combined operation as a matter of routine. But recently, after a most successful result in a chance simple extraction, I was led to review my experience, and finding that the simple results were fully as good as the others, and the operation itself easier and more attractive to perform, I have in the last few years adopted the principle of Terrien and Meding, and do the simple extraction when I can, the combined when I must. I have not prepared any statistical table of results, for at this late day the figures of any one operator, save a few men of exceptional experience, are of small significance. Still less impressive is the citation of cases, for any operator of any experience can show brilliant successes with either form, and similarly total failures with each. Both I and my patients have as much ground for satisfaction from my operations done without iridectomy as from those done with it. And that, for me, is sufficient ground for continuing to do the simple operation, for the simple reason that it is simple.

It is not necessary in this assembly to describe the technic of the operation, nor to rehearse the various familiar arguments for and against it. The best summary that has come to my notice was presented some years ago by Coburn to the Ophthalmic Section of the New York Academy of Medicine. The great objection to the simple operation, the one without which all the others would be forgotten, is the danger of iris prolapse, and it is, beyond question, a grave one. If this danger could be obviated, few combined operations would be done, for the combined operation, too, has its disadvantages. It is more difficult to perform, and prolapse of the vitreous, incarceration of iris or capsule fragments with resulting glaucoma, and higher degrees of astigmatism, are all more common after the combined operation, without mentioning the characteristic disfigurement of the pupil.

The question for practical consideration, then, is whether we can, by selection, avoid cases in which the danger of iris prolapse is great, while retaining the advantages of the simple operation for those cases in which the hazard appears less. Admitting that there is no agreement as to the causes of prolapse, and no assured way of determining conditions in any given eye or patient, there are certain things that we know we can avoid, lowering by that much the percentage of failure in the simple operation. For the present, we will disregard actual or suspected glaucoma, the indications for iridectomy in such cases being independent of surgical considerations. Simple extraction is not to be attempted with immature or swollen cataracts, which are today so frequently submitted to operation, nor with degenerate or atrophic irides nor those which have been subject to recurrent iritis. It should not be done upon restless, nervous, or uncontrollable patients, who are apt to squeeze, nor in those with a cough, nor under general anesthesia, although even in these conditions it has its good points, requiring less time and manipulation, while a healthy iris forms a defense against loss of vitreous. None of these guides is sure, none can be invariably recognized, and in spite of all avoidance of contraindications prolapse of iris will sometimes occur, with a nasty situation resulting. But failure is no peculiarity of one operation: the combined has its dangers and its failures also. It would be a colossal error to think of one as dangerous, the other as safe: everyone here knows better than that.

The only question is the ratio of safety and danger between the two. Herman Knapp, who knew as well as any man that ever lived, said: "Simple extraction is not only the best but the safest operation for senile cataract." If the inherently better operation, which the simple is generally conceded to be, can be equally safe, or nearly so, in any selected case, it is the proper procedure in that case, regardless of what may apply in any other case.

Two comparatively recent developments, which are being more generally applied, have contributed to this end, viz: akinesis of the lids, and suture of the corneal or conjunctival flap, usually the latter. They are not peculiar to the simple operation, being equally applicable to either, but as the operation of choice becomes safer, the operation of necessity becomes correspondingly less necessary. My personal experience with each is limited, and perhaps for that reason not so far very brilliant, but I believe both are well worth while, and are steadily increasing in popularity. Mills, of Los Angeles, before the A. M. A. last year, said that he employs an average of 5 sutures per operation, all inserted after completion of the section, but this seems to have been regarded rather as an exhibition of virtuosity than as desirable for general use.

Of peripheral iridectomy it is probably not my place to speak, as it certainly is not the "simple" extraction, but neither is it the combined operation, as that term is generally understood. I have no personal experience with it, but, except that it is said to be rather difficult to perform, it seems to unite most of the advanages of both of the older operations with few of the disadvantages of either.

In conclusion, I cannot do better than to call to the attention of those who may not have seen it already, Meding's article in the latest (May) issue of the Archives, not so much for its substance, interesting and valuable as that is, as for the wisdom and sound common sense in the introduction. Among much else worth while, he says: "Does it not seem that the selection of a method should be preceded by a study of the subject to be operated on, as well as of the object sought?" And again: "I cannot conceive the state of mind that expects one method to be universally applicable . . . . 'All sufficient' is not a value in argument for any remedy or any operation, since selective judgment is based on analysis. Good surgeons vary their procedure, even in classic forms." In this spirit I wish to close, leaving with you the idea not, indeed, that simple extraction of cataract is *the* method, nor even that it is the best method in all or most cases, but that it is the method which will give the best result in many cases if they are selected with the care and attention which should be given to any major surgical operation.

COMBINED EXTRACTION*

Lee W. Hughes, M. D.,
Newark, N. J.

It has been my experience that this type of operation is suitable only in cases of senile cataracts of the so-called "hard type" of cataract, where the nucleus is large and the color of the cataract distinctly gray, yellowish or brownish—the type of cataract that is seldom seen before the fortieth year of age.

The condition having been diagnosed as senile cataract of the hard type and the iris no longer casting a shadow upon the lens; there being good light perception and light projection; no evidence of any infection of the lachrymal apparatus and an apparently healthy conjunctival sac; the case is considered ready for operation as far as the eye is concerned. It is, however, most essential that we obtain a complete medical history as well as have a thorough physical examination of the patient so that all forms of focal infection, i. e. teeth, tonsils, sinuses, cystitis, infected prostates, are either definitely excluded or their presence determined and the proper treatment instituted so that they may be completely eradicated before the cataract operation is undertaken. The presence of a trace

*(Read before the Section on Ophthalmology, Otology and Rhinolaryngology of the Medical Society of New Jersey, Atlantic City, June 13, 1929)

of albumin or a mild state of diabetes is not considered a contraindication to operation.

A smear and culture from the conjunctival sac are made at least 24 hours before the time of operation; I would hesitate to proceed with the operation if any other organism than the Staphylococcus albus was found upon culture from the conjunctival sac. The patient is admitted to the hospital several hours previous to the time scheduled for operation, during which period the conjunctival sac is irrigated hourly with saturated boric acid solution. One hour before the operation a drop of 1% atropin solution is instilled in the eye that is to be operated upon.

One point that seems to me of real importance is this: most patients who are to have a cataract extraction are rather apprehensive and it is my opinion that if they are in the hospital several hours previous to their operation (preferably being admitted the night before the operation) they are able to become acquainted with their surroundings and enter the operating room with greater confidence.

The patient is sent to the operating room one-half hour before the time of operation and the field of operation is prepared by the nurse in charge who must be, of course, one trained in the handling of cataract cases. This nurse instructs the patient in muscular movements, such as having him look in all the cardinal directions of gaze and impresses upon him the necessity of following the instructions of the operator during the operation. The patient's eyebrow is shaved; the cilia trimmed close to the lid margins, the face washed with green soap and alcohol and a sterile dressing applied.

It has been our custom for some time to use a 2% solution of butyn, having 1 drop instilled into the conjunctival sac at 2 minute intervals (using 4 instillations) followed by 1 drop of adrenalin solution (1:1000). The conjunctival sac is irrigated with a saturated solution of boric acid held some distance above the patient in order to obtain sufficient force—the assistant directing the force of the current underneath the patient's upper lid and thoroughly washing the entire conjunctival sac. The patient's entire head and shoulders are then surrounded by sterile towels and a large piece of gauze, saturated with the boric acid solution and with a hole cut in the center, is spread across the nose, face and brow, leaving only the eye to be operated upon exposed.

It is essential to have uniform illumination upon the field of operation. Whenever possible, daylight is best. The greater portion of the time, however, we use a filament light. The surgeon stands behind the patient when operating upon the right eye and to the patient's left side when operating upon the left eye. The speculum is inserted, and the patient is instructed to look upward, while the conjunctiva of the globe, just below the inferior border of the cornea is grasped with a fixation forceps, and gentle traction is made downward. A Graefe cataract knife enters the cornea at the outer extremity, exactly at the corneoscleral junction and passes across the anterior chamber to a corresponding point on the opposite side where a counter puncture is made; and owing to the convexity of the cornea, the counter puncture should be made when the tip of the knife appears to be approximately 2 mm. from the corneoscleral junction, otherwise there is danger of extending the incision into the sclera. The incision is made to include the upper 2/5 to 1/2 of the cornea. The knife is pushed steadily onward as far as possible with an upward tendency and the incision is completed by a sweeping motion upward, keeping the knife in the same horizontal plane until the corneal incision is completed. The incision is then carried under the conjunctiva for approximately 2mm. more, where the blade is turned sharply at right angles with the cutting surface upward, and the conjunctival incision is completed so as to give a nice large conjunctival flap. The speculum is then removed and a lid elevator used to retract the upper lid. The assistant holds the lid elevator with one hand and with the thumb of the other hand controls the action of the lower lid.

We then proceed to the second phase of the operation, or the stage of iridectomy, with the assistant controlling the action of the lids as before described. The conjunctival flap is

stroked down over the area and a small rat-toothed iris forceps is introduced over the body of the iris. The patient is instructed to look slowly downward while the body of the iris is grasped near the pupillary margin, the tissue drawn out toward the cornea and, with a small curved iris scissors, cut off close to the cornea, making as small a coloboma as possible. The pillars of the coloboma are smoothed out with a thin spatula.

The third phase of the operation is the stage of capsulotomy. With the assistant still controlling action of the lids the cystotome is introduced to the lower part of the coloboma, with the cutting edge held flat-wise. Then its cutting edge is turned toward the capsule, and a large V-shaped incision, with its apex directed upward, is made after the manner described by Ziegler—this type of incision oftimes doing away with the later necessity for a secondary operation.

The fourth phase of the operation, or the stage of delivery of the lens is now reached. The assistant retracts the upper lid away from the globe by means of the lid elevator and retracts the lower lid by means of the thumb. Two Daviel spoons are used in expression of the cataract. The convex surface of one is placed against the inferior portion of the cornea and the convex surface of the other against the sclera just above the lips of the wound, and the patient is instructed to look downward. Gentle pressure is made on the lower spoon and slight, but gentle, counter pressure is made on the upper spoon, which movements cause the upper margin of the lens to appear in the wound. The pressure on the lower spoon is made with a gentle upward motion, which is relaxed as soon as the upper 2/3 of the lens has been delivered from the wound. The upper spoon catches the lens and lifts it out. The cornea is then gently stroked with the lower spoon to remove any of the broken-off pieces of cortex. The elevator is then removed and the patient told to gently close his eyes as if he were going to sleep.

The final stage of the operation is often spoken of as "toilet of the wound". After a few moments the upper lid elevator is again introduced, and the lid is lifted gently away from the eyeball and the patient instructed to look down, the operator noting whether any cortical remnants are present in the pupillary space or if any pieces of capsule are caught in the lips of the wound; if so, they are removed by means of a thin spatula, as are also any blood clots in the wound or the lower cul-de-sac. (I have long since given up irrigation of the anterior chamber for the removal of cortical material).

One drop of 1% atropin solution, and 1 drop 2% mercurochrome solution are instilled and the eye closed. Bichloride of mercury ointment (1:5000) is then applied to the lid margins of both eyes and the dressings applied to both eyes, fastened by adhesive sterile silk. An aluminum disk placed over the dressing of the eye operated on, fastened by adhesive silk, completes the actual operation.

After-treatment and summary. During the first few hours following operation the patient is requested to lie flat upon his back, with a very thin pillow supporting his head. He is then permitted to shift head, shoulders and hips from side to side, but is not allowed to turn toward the operated side. The morning following the operation the dressing is removed from the unoperated eye and the patient allowed a thick pillow supporting his head and shoulders. The second morning following operation the patient is allowed a back-rest, raising head and shoulders to the semirecumbent position.

The wound itself, in the absence of pain, is not inspected until the fourth day following operation, when the dressing is changed and 1 drop of 1% atropin and 1 drop of adrenalin (1:1000) are instilled. On this day the patient is allowed out of bed for a short period of rest in a comfortable chair at the bedside. The diet for the first 24 hours should be liquid, and as little as possible. After this length of time the diet may be gradually increased according to the needs of the patient. The bowels should be kept open after the third day following the operation, by means of a mild laxative if necessary to prevent straining at the stool.

The eye is dressed daily after the first

dressing and any excess secretion is washed away with boric acid irrigations in addition to which 1 drop 1% atropin and 1 drop of 1:1000 adrenalin solution are instilled. The dressings are discarded at the end of 10-12 days when the patient is given dark glasses and allowed to go home, instructed in the use of a suitable eye wash, and the use of 1% atropin is continued if there is sufficient ciliary injection to warrant it. The patient is kept under observation from 4 to 6 weeks following the operation and, in the absence of a dense posterior capsule, can usually be fitted with suitable glasses at the end of that time.

Conclusions

(1) Combined extraction operation is suitable only in cases of senile cataract of the so-called "hard type".

(2) Preparation of the patient; ruling out the presence of any focal infection; ascertaining that the conjunctival sac is clean and healthy.

(3) Importance of a narrow coloboma of the iris to prevent dazzling following the operation.

(4) A wide conjunctival flap to insure proper healing of the wound and minimizing the danger of infection following operation.

(5) The large V-shaped incision in the capsule after the manner described by Ziegler often does away with the necessity of a secondary operation.

(6) Making the patient as comfortable as possible following the operation and avoiding too early and repeated changing of the dressings.

PRELIMINARY IRIDECTOMY*

Charles H. Schlichter, M.D.,
Elizabeth, New Jersey

The question whether to do a preliminary iridectomy in cataract extraction is one that has long been debated. It is a question which most operators must settle for themselves. Much has been said against it and much for it, as a good procedure.

At first, I always did the combined operation but observation and experience have convinced me that, on the whole, the preliminary iridectomy has given me the best results; particularly in that class of patients which makes up the majority of my cataract work, i. e., the ward patient, who presents the average of the personal idiosyncracies, temperament and latent focal infections of our operative material.

Preliminary iridectomy was first practiced by Von Graefe, who considered it safer to do the double operation for cataract than to do the whole extraction with iridectomy at one sitting. Mooren is said to have been the first to practice and "advise the operation in all cases of cataract that require iridectomy". Reber (N. Y. Med. Jour., April 6, 1907) considers that preliminary iridectomy offers the patient the largest chance of success.

The arguments raised against preliminary iridectomy are:

(1) Increased risk in operating upon the eye twice.

(2) Increased astigmatism on account of 2 incisions in the cornea.

(3) The necessity in the second operation of cutting through scar tissue, which heals poorly.

(4) Patients stand a first operation with more fortitude and less strain than a second one.

(5) A needless mutilation, since it is claimed that the eventful chances of success are no greater when preliminary iridectomy is done.

(6) Consideration of the patient's time.

The arguments in favor, according to Coleman, are:

(1) The maturing of an unripe cataract is frequently hastened.

(2) The diagnosis of the character and size of the cataract is facilitated.

(3) The surgeon learns of the amount of self-control possessed by the patient.

(4) During the extraction there is no hemorrhage from the iris.

---

*(Read before the Section on Ophthalmology, Otology and Rhinolaryngology of the Medical Society of New Jersey, Atlantic City, June 13, 1929)

(5) The iris does not fall in front of the knife.

(6) There is an unobstructed doorway opened for the cystotomy and expulsion of the lens and cortex.

(7) There is no pressure trauma of the iris such as occurs in the simple operation (even with best of anesthesia).

(8) The iris is healed, leaving only the corneal incision to heal.

(9) Operation is shorter and less painful than the combined method.

(10) It lessens the danger of iritis and of glaucoma.

(11) It is the operation best suited to complicated cataracts and is not unsuited to any.

(12) There is less need for subsequent needling.

To these are added by Reber:

(13) The surgeon by doing 2 operations will acquire skill in ocular operations in one-half of the ordinary time.

(14) Any latent dyscrasia is likely to reveal itself during healing after the iridectomy and the patient may be better prepared for the final operation.

So you see that there are very good arguments in favor of the procedure. Now to take up the arguments against it:

Increased risk in operating on the eye twice. I question whether that is so. In my own hands and that of some of my colleagues it certainly does not hold.

Increased astigmatism on account of 2 incisions in the cornea: This in my cases has not been so. I have observed no more than when I did the combined operation.

The necessity in the second operation of cutting through scar tissue, which heals poorly: We have not made this observation. If the iridectomy is well done with a triangular keratome and a small incision made just large enough to take out a small piece of iris, I believe this to be a negligible factor.

Patients stand a first operation with more fortitude and less strain than a second one: In my experience this has not been the case. In fact, patients having had the iridectomy under a good anesthesia, have experienced no pain, and actually approach the second operation (the extraction) with more courage and confidence than the first; often saying, "Well, Doctor, if it is no worse than the first, there is nothing to it."

A needless mutilation, since it is claimed that the eventual chances of success are no greater when preliminary iridectomy is done: I do not agree with this. For when we come to do the second, and more important, operation, the operator and the patient thoroughly understand one another and better team work is had with much better chances for success.

Consideration of the patient's time: We keep our patients in the hospital 3 days, on the average, for the iridectomy and it certainly shortens the stay in the hospital after the second operation because of the shorter time required for healing of the cornea, the iris being already healed. So that actual time in hospital for the 2 operations with us is no greater than for the combined operation.

Before going to the hospital the patient's general condition is thoroughly gone over. He is carefully examined for abscessed teeth, retained roots (and this must be looked for even when the patient tells you that his teeth are all out), for I have had several cases in which a retained root was found surrounded by an abscess. Examine tonsils and try to get history of tonsillitis, rheumatic pains, etc. Look for a history of so-called indigestion with special reference to gall-bladder disease. Examine for chronic cervicitis in women and chronic prostatitis in men, squeeze on the lachrymal sac and then take a culture from the conjunctival sac, examine blood for luetic infection, take the blood pressure and examine urine and kidney function. If diabetes is suspected and no sugar is found in the urine, it will be advisable to have a blood sugar examination made. The accessory nasal sinuses, too, must be carefully examined.

If any of the above tests give positive answers, proper corrective procedures must be instituted before operating. Then it is wise to study the patient's general make up, his reaction toward the thought of an operation, his ability to coöperate and, further, it is well to practice, with the patient in the recumbent

position, a few of the things you expect him to do. Holding the lids apart, have him look up, down, to right, to left, look at a certain spot and always caution him not to squeeze or press. Having done this, clear the bowels by enema the morning of the operation and, after washing the face with soap and warm sterile water, irrigate the conjunctival sacs with sterile boric acid solution; this after 1 instillation of cocain 4%. I cannot bring myself to believe in bichloride of mercury, which is obsolete as an antiseptic and has long since been discarded by the general surgeons. After this is done, instil sol. cocain 4% every 5 minutes 4 times. Five minutes after the last instillation of cocain inject under the conjunctiva about 3 mm. from limbus a ½% novocain once above in line of 12 o'clock, once in line of 3 o'clock and once in line of 9 o'clock. Wait 10 minutes and then make the incision above in the usual way with a triangular keratome, seize the iris and incise a very small piece. It is our practice to instil 1 drop of sol. atropin sulph. 1% and 1 drop of sol. mercurochrome 1%, after which the eye is covered by a gauze and cotton pad, and the side which comes in contact with the eye is covered with a thin layer of sterile white vaseline. Both eyes are bandaged. The patient is put to bed carefully and told to lie on his back with sand bags on each side of head for over night. Luminal gr. ½ is given. The bandage on the good eye is removed after 24 hours and the eye operated on is left undisturbed for 48 to 72 hours, unless there is pain. By following this procedure, I am sure our results have been better, our patients are happy and contented. I, for one, shall continue to use it. Surely for the surgeon who is not doing cataract operations every day, and who has to operate on all kinds and conditions of people, the procedure of doing a preliminary iridectomy offers in my opinion the safest method of insuring final success.

Discussion on Cataract Symposium

Dr. Leighton F. Appleman (Philadelphia, Pa.): I guess that with the average man, I have gone through the usual vicissitudes in connection with cataract operations, and until this year I have been in the habit of doing a combined operation followed by a capsulotomy by the usual method. The *bête noire* of the whole thing, as done by that method, has been, to me, the presence of the after-cataracts, and this in some instances offers quite an obstacle, of course, to clear vision, and necessitates the operation of capsulotomy later. During the past winter I have been trying to get away from this after-effect and endeavored to do the intracapsular operation, first, according to the method of Dr. Smith with more or less indifferent results, because, possibly from my inexperience with the method, of loss of vitreous, not sufficient, however, to materially interfere with good final results. Following the visit of Dr. Knapp to the Section on Ophthalmology of the College of Physicians of Philadelphia early this year and hearing his description of his method of doing an intracapsular operation, I was induced to adopt it. I was perfectly able in 2 cases to extract the lens without loss of vitreous and with no after remains at all, which, of course, is as it should be following this operation. I was delighted with the result, and during the remainder of my term, (the cataract period being now almost expired) I have endeavored to follow this procedure in the cases which I thought suitable. I have had about 15 cases on which I have done it since the first of the year. In every one the results have been so far superior to the older method of capsulotomy that I do not hesitate to say I consider it the method of choice.

I have had no experience with the method of phacoërisis and, therefore, cannot speak from actual experience of that method, but for the intracapsular I can say that the period of hospitalization of the patient has been reduced from an average, I should say, of 12-14 days, to an average of about 8, and repeatedly the patients have been able to leave the hospital within that time.

Of course the operation of choice for any given individual is that with which he succeeds best, yet I believe that we should all look for the operation which will give us the cleanest results and the patient the best vision, with as little inconvenience as possible, and I should consider that improvement along these lines is always to be sought. I think that Dr. Knapp has given one of the best procedures with which I am familiar. While these other methods are, of course, in the hands of those who are accustomed to using them, probably the best procedures, I feel we are advancing when we can relieve the patient by early operation in cataracts which would not be considered ripe for operation in the sense that no iris shadow is noted on the lens, but in which removal of the lens in its capsule may be followed by perfectly splendid results without the patient having the necessity for any further operative interference.

Dr. Hughes remarked that he has given up irrigation of the anterior chamber. Here again is a very valuable procedure in those instances in which capsulotomy has been done and more or less lens matter or other débris, possibly of hemorrhage, remains. I think a great deal can be done by irrigation of the anterior chamber under these circumstances. For this purpose, I prefer the simplest form of cannula that can be devised, simply a curved cannula fitted to a rubber tube 10-12 in. long, and the fluid running in by gravity, the tip so small that it can be used very much as a spatula is used. I have repeatedly been able to replace the iris and at the same time irrigate and get rid of a great deal of material which would otherwise cause interference with the healing and possibly greatly aid in forming an opaque secondary membrane. I think in regard to this, as in many other things, we should not have a hard and fixed rule as to whether we would, or

would not, do a certain thing in any one particular case. The circumstances arising during the performance of an operation will often guide one as to what ought to be done to clear the situation. In those cases in which it appears to be necessary, I do not hesitate to irrigate the anterior chamber.

As regards the waiting for a cataract to mature, I do not think we need to wait as long as we have in the past, having at our disposal these newer methods of disposing of the cataract.

I have had several cases of railroad men to whom the loss of time, in waiting for a cataract to mature, has been a very serious handicap, and, in their inability to earn anything they have been reduced to rather serious financial straits. Therefore, I look with great favor upon the newer intracapsular operation.

Dr. Charles Littwin (Englewood): In the past several years, I have had the honor of helping Dr. Hartshorne in the evolution of his technic. It really has been an evolution, because there have been several points that have been added and others discarded. In the last analysis, the removal of a cataract simmers down to one simple principle; instead of having a clear, transparent, crystalline lens through which light can travel and images be projected upon the retina, we have an opaque body and the thing we have to do is remove that opaque body. This can be done in one of 3 ways: The old classical capsulotomy with extraction of the lens contents, or the newer method, that is, the intracapsular operation of Smith, and the third method of Barraquer with its modifications, of which Dr. Hartshorne's is one.

To me, the removal of a cataract is very similar to the removal of tonsils. For years men have been removing parts of tonsillar tissue, only later to be confronted with the gravity of having retained material to become infected and having them removed again. In removing a cataract the idea is to take it all out, not too little and not too much. If there is any retained capsule or retained lens matter, we get irritation of the eye, or an opacity of the retained lens matter, which requires more operations or may form some sort of an irritation which will interfere with our good result. Taking out too much means taking out the lens plus something else, that is, plus vitreous.

The first 2 methods of operation use this technic: After making an incision in the cornea and then again in the lens, we have to press upon the cornea, trusting to good fortune that only what we want will come out. A simple physical law is that pressure when applied to a surface is transmitted in all directions equally. When we press upon the cornea, there is pressure transmitted in all directions and, luckily enough, having the incision made in the cornea, the lens which is the loosest part, takes the path of least resistance and slides out. In certain cases where there is no hyaloid membrane, or so-called hyaloid membrane, and if there is something holding back the lens from sliding through the corneal incision, nothing will stop that lens from falling back and causing a dislocated lens. In these cases, the suction operation, or phacoërisis, seems to be the ideal. In cataract operations there is so much at stake that I believe every step has to be watched.

The former speakers have very well emphasized the different points but to my mind the several points that are most important, are: First, the Green speculum, which enables the assistant to hold the lid away from the operator; instead of holding it in the left hand in the operator's way, he is on the other side of the patient, holding it from below. Second, the superior rectus suture, which his assistant holds and the eye cannot be moved up nor down. Just a little pressure on the suture holds the lid in almost perfect control. Third, the Van Lint flap. It is all well and good to make an incision and try to make a conjunctival flap with your cataract knife; sometimes it is almost impossible, especially after you have done a preliminary iridectomy where you have scar tissue and cannot go beyond that scar. With a Van Lint flap, you have exactly what you want. You can take all the time you need, because there is absolutely nothing to stop you, and this also promotes the healing of the cornea to the sclera without any prolapse. Fourth is the preliminary iridectomy, which I think helps an awful lot in getting the patient under control, the patient knowing just exactly what is going to happen, having had one operation; he does not fear the second one so much, because it doesn't seem an awful lot; and in taking the lens out there necessarily has to be some trauma to the iris because the iris opening is never larger than the lens and by pulling the lens through the iris, you get a trauma somewhere and you might as well know where it is going to be.

One point Dr. Hughes mentioned after the extraction is performed, was that he has the patient look down. We have found that in the last few operations that may cause serious results. Asking a patient to look down, he may overdo it and by pulling on the inferior rectus cause a gaping of the wound; and in the few cases of vitreous loss we have had that is what induced the prolapse. I think the best thing to do is to have him look straight ahead and even if you have to put the iris in, or use the iris repositor, let the operator be a little inconvenienced, rather than to take a chance on losing the vitreous.

Then the last thing is in having a team to work together, an assistant knowing exactly what the operator is going to do so there won't be any unnecessary talking during the operation, because sometimes the patients are very, very keen and the least little thing said disturbs them. If two men are working together, each knowing exactly what the other is going to do next, you will get far better results.

Dr. E. S. Sherman (Newark): Dr. Hughes asked me to make a few remarks on his paper which I am very glad to do. In the first place, I want to say that I have been very much impressed with the adequate description Dr. Hartshorne has given us of phacoërisis, and his results are certainly very impressive. I have had no experience with the operation, but it sounds like the ideal thing. It is certainly safer than the Smith operation or any modification of it.

Dr. Hughes has given us a clear and concise account of the operation of choice, of the large majority of operators, with certain modifications, as it is done today. It is the operation of choice because I believe it gives, if not the greatest number of results of 20/20 and 20/15 vision, fewer disasters than any other method in the hands of the average man. This thought was very well expressed some time ago by Walter Lancaster in discussing a paper of Parker's, when he said the combined operation if published today for the first time would take us by storm. It is the form of operation which I have done almost exclusively and while it is far from ideal and satisfactory, I believe in my hands and the hands of most of us in the light of our present knowledge, it is the safest thing. But I have come in recent years to

do the preliminary iridectomy with more and more satisfaction, and am sure it is of real value.

Dr. Schlichter's paper was full of good common sense. I was very much impressed by all he told us, but there are some reasons for preliminary iridectomy that have occurred to me which he omitted. One of the important ones is this: The most dangerous part of the operation, because it is the painful part of the operation, namely the iridectomy, is done under conditions of safety. If the corneal incision is made as it should be, as described by Dr. Schlichter, with a keratome, subconjunctively, I believe it is practically free from danger, and it does give us an opportunity to do the serious part of the operation, one where we are most apt to have squeezing, under conditions of safety. I have been doing it lately almost exclusively. I let the patients go home from the hospital usually on the second day. There is seldom any reaction, and I am convinced that there is less reaction following the extraction.

There are 3 or 4 comments I want to make on Dr. Hughes' method of operating. I want to emphasize the importance of focal infection. I believe since we have been cognizant of the danger of focal infection and paid attention to it before operation, whether we have retained lens matter or not, we have very much less reaction. I don't agree that we should wait in many cases until the cataract is mature or ripe. If the patient is past 65, and sometimes earlier, extractions can be done perfectly safely with very little retained lens matter and it does seem to be cruel to keep these patients with a double cataract waiting months and sometimes years for the cataract to ripen.

I think the speculum is dangerous, and for a number of years I have been using only the lid retractors as advised by Fisher. I think he has given us some very valuable points. The important thing in regard to lid retractors is that they should be in the hands of a thoroughly trained and reliable assistant. They are much safer than the speculum.

In regard to the capsulotomy, I am satisfied we have fewer discission operations if we can tear away an area of the anterior capsule with forceps, rather than do any form of incision.

Probably the most important thing is perfect anesthesia. I think more accidents happen because the patient experiences pain than from any other cause. One of the chief sources of danger is pain. I am convinced that in many cases blocking of the nerves or controlling the orbicularis with subcutaneous injections is valuable.

With regard to after-treatment, I believe it is bad in the absence of symptoms to uncover an eye in less than 3 days. Sometimes I don't uncover it for 5 days. My usual practice is to lift the dressing the third day, and if there is no secretion, I simply replace the dressing and do not look at the eye until the fifth day.

Another point which I have followed for a number of years is permitting the patients to move about, within limitations, in bed almost immediately after operation, roll from side to side, have a comfortable pillow, and in the case of elderly people, have them sitting up the second day. I have never seen any ill result from this and I think it often prevents mental complications.

I never put them in a dark room, but always permit a moderate amount of light. I have never had a case of delirium or mania. I recall that 25 years ago our patients used to be in a darkened room, quite darkened. Not infrequently we had cases of mania and delirium. I used to think then it was due to the darkened room. Some surgeons follow the practice of keeping their patients rigidly quiet and won't let them move for 24 or 48 hours. I think this is cruel and unnecessary and I am convinced it has a great deal to do with bringing on these mental states.

Chairman Emerson: Personally, I have done nothing but preliminary iridectomy for a great many years and the reasons given by Dr. Schlichter have been my reasons. Of course, each man has to select what he feels he gets his best results from. Years ago when I began working in a small general hospital, there were only 2 of us on service and the other man went to New York 3 days a week and I went 3 days a week to the Manhattan Eye and Ear Hospital; consequently, I gradually evolved a technic in which I did my cataract operations without any assistance, and I do that today. Nobody touches the lids or the eyes or does anything at all but myself.

As to cocainization, many years ago I adopted Dr. Savage's 4% cocain, 4 times every 4 minutes. I had found that some of my patients came to operation and were not thoroughly cocainized. I found the reason of that was that the drops were not put in by the same nurse and sometimes a nurse in her training in the operating room wasn't familiar with putting drops in a patient's eyes or putting them in well, and perhaps she was imbued with the idea that she mustn't put more than one drop in and the patient energetically squeezed that drop out, and if the patient got 1 drop of cocain in his eye every 4 minutes 4 times, he came to the table not very thoroughly cocainized. So, I have enlarged that so that now the directions are 4 drops of 4% cocain 4 times every 4 minutes, and we can be pretty well assured if we wait 5 to 10 minutes after the last instillation that our patient is pretty well anesthetized.

One thing that I do not do; I never tell a patient to look down. I think if there is any way you want to get a patient to roll his eye up in the top of his head it is to tell him to look down; he will surely roll it up for you. Consequently, I use a light with a shade, an ordinary hand lamp, held parallel to the patient's body in exactly the middle line over the patient's sternum. The only thing I say to the patient is: "All you have to do is, when I tell you to look up to me, look at me, and the rest of the time look at the light." When I tell them to look up at me that is when I get hold of the conjunctive with the forceps. Then I say to the patient: "Now don't look anywhere else but keep looking right at the light." Here is the patient and the light is right there and it gives perfect illumination. It is held so the light doesn't shine in my face, but shines in the patient's face and is an excellent target for the patient to look at. If they show any tendency to waver while I am making my section, I say, "Keep looking right at the light", and not in a hurried, quick or forceful way, but gently, "Keep looking at the light". After I complete my section, while I am laying down my cataract knife, perhaps for a second my eyes are off the eye to pick up another instrument and I say: "Keep looking at the light. Don't close your eyes. Look at the light." I find that controls the patient's eye movements, and then when I want to make my capsulotomy, the eye is in exactly the right position.

Another thing which I do in my preliminary iridectomy, which obviates the criticism that many men have made, my section is always made in the cornea about 0.5 mm. forward in the cornea. What is this section made for? It is made to enlarge the pupil so that the lens will slip out. You are not

doing an iridectomy to take out the root of the iris; you are going to get far more reaction and be more liable to get prolapse of the iris if you go back and make the section in the sclera at the base of the iris and take out the root of the iris. I make a marginal iridectomy. I reach in and take hold near the margin of the lid, pull it out, and I always use scissors, because I can do it so much more quickly and suddenly. Sometimes the patient, from the pain of the snip or the pulling of it, will roll his eye suddenly, and if you have de Wecker's scissors and are right there ready, you can get that iris off before they roll the eye or pull it away. I think that is the greatest catastrophe that can occur; to get hold of the iris and have the patient roll his eye and get away from you. The anterior chamber immediately fills with blood You have hurt the patient and he has a great deal of reaction and trouble for several days afterward. The preliminary iridectomy, as I usually do it, shows almost no reaction the second day. The eye is uncovered on the third day, and I have in many instances done a cataract extraction 5 days after my preliminary iridectomy.

The other methods are no doubt superior in many ways. I have done this so long, have evolved a technic which seems best fitted to my ability, so that I can't conceive of my ever changing my method. The trouble with the operation in capsule is that it is not for the occasional operator, and I call myself the occasional operator. As a rule, I do not average more than 25 cataracts in a year, and I don't think that is a very large number of cataract operations. For a man who can have the opportunity of a large clinical or hospital experience and do several hundred and become expert, as have Colonel Smith and others, there is no doubt that the extraction in capsule is the ideal operation, but for that you must have patients of a certain temperament; you must have skilled assistants and an opportunity for perfection of technic which the occasional operator does not get.

Dr. Isaac Hartshorne (New York City): Dr. Emerson in his last remarks brought out part of what I said in the first place, that while the intracapsular operation is ideal, it should not be attempted by the occasional operator, unless you can find a method which the occasional operator can easily learn. I have seen Dr. Knapp operate. He operates beautifully. His operation is certainly very pretty, but I have seen him do 3 intracapsulars in one afternoon and lose vitreous in 2 of them. I didn't want to try it after that. Also, it seemed to me it would be much harder, for I am also an occasional operator; that is to say, I don't do as many cases as some of the other men in New York, and this modification of the Barraquer operation has been, to my mind, very easy to learn. Whereas, I should consider the Knapp operation a very difficult one to learn, and certainly the Smith operation would be more difficult than the Knapp. Dr. Lancaster does a beautiful operation, (perhaps you have seen him) in which he simply grasps the foot of the lens with a forceps and lifts it out in tumbling and without any pressure below the cornea at all. I think that would be rather difficult until practiced a good deal on animals. It is necessary, in order to learn the phacoërisis, to do considerable experimentation on animal eyes. I do not think any of us should attempt it unless we have tried it on a good many kittens' eyes first.

Modern surgery is leading always toward physiology, retention of normal physiology, rather than simple anatomy. Therefore, I do believe that the simple extraction or at least the extraction with the round pupil, with peripheral iridectomy, is much preferable to doing the full iridectomy. I am sure, however, that the Green method of extraction (direct) is much easier than Barraquer's method of tumbling. If the operation is to be done with a round pupil, peripheral iridectomy, it would have to be tumbled. I do not believe I could extract the lens directly without the full iridectomy.

As to my future practice, sometime I am going to learn to do the tumbling operation in order to retain the pupil, because I do think that would still be a better operation, but for a beginner, and I am still a beginner in this operation, the method I described is a safer and easier way to proceed. It is certainly the easiest I have seen anywhere, and it really is easy to learn, provided you begin on animal eyes.

Dr. Elias J. Marsh (Paterson): Mr. Chairman, it doesn't seem that my paper requires any further comment, because it didn't create very much disturbance in the house, but I would like to say a word or two about Dr. Schlichter's and also Dr. Hartshorne's paper.

Just this about Dr. Schlichter's operation. What a friend of mine in New York told me he considered the chief indication for the operation of preliminary iridectomy, was not mentioned either by Dr. Schlichter or by yourself, so I would be pleased to think it doesn't apply, with all due respect to Dr. Hartshorne, in New Jersey. It is that where you see a cataract in its early stages, if you do a preliminary iridectomy, you put your brand on that patient. Consequently, you lessen by that much the possibility of somebody else getting the case away from you before the cataract is ready for operation. (Laughter)

I had the very great pleasure some 3 or 4 years ago when Dr. Barraquer was in this country, of seeing him do 2 extractions at the Knapp Hospital. I had a splendid opportunity to see him, as good as could be asked for, because I held the light for him. I thought I was going to see what he did. As a matter of fact, I did not. I had read his description of his operation before. I had seen other operators, not doing that operation, but I had seen Dr. Knapp many times doing the operation to which reference has been made. I practically didn't see what Barraquer did. I thought from his description he took hold of the lens and held it a while with his instrument to loosen it, and finally brought it out, instead of which I found he slipped in the crisiphake, turned on the current, and immediately drew it out, like a magic trick, you might almost say like a magician taking a rabbit out of a hat. That impressed me as the most remarkable part of the whole operation. I haven't had the opportunity of seeing Dr. Hartshorne, but doubt not he does the same thing just as well. He simply slipped the instrument in and presto, there was the lens. That is all there was to it.

I have had a little experience with the Green speculum and my assistant and I get along pretty well with the right hand eye and speculum, but we haven't yet developed enough team play to do equally well with the left eye. I want to ask Dr. Hartshorne this: Perhaps the idea is that it is intended solely for this operation. The difficulty I found with it is that the blade is a little in the way after your extraction when you come to do the toilet of the wound or replace the iris and so forth. I would like to know whether that is my fault or whether it is a disadvantage in the instrument?

Dr. Lee W. Hughes (Newark): My training was obtained at the Wills Hospital in Philadelphia and during my service I saw a number of the cases on which Dr. Fisher had performed simple extractions, and in the hands of Dr. Fisher that operation was ideal; its results were excellent. During the time that I was senior house man I had the privilege of getting 18 cases ready for Colonel Smith, in which he did the intracapsular operation. It was also my good fortune to be able to follow these cases through their convalescence and after submitting the results to the Staff of the Wills Hospital, it was their unanimous opinion that they would not do the Smith operation.

In the operation I have described today, "combined extraction", which I stated is limited to cataracts of the so-called hard type, I do not wish to go on record that I am adverse to the preliminary iridectomy, because I am heartily in favor of the preliminary iridectomy, and especially in those cases that appear to be complicated.

Recently I operated on a patient 81 years of age who had practically 12/200 vision before operation. I did a preliminary iridectomy and 4 weeks following extraction the patient had 20/30 vision, with correction, with very little irritation following the operation.

Dr. Charles H. Schlichter (Elizabeth): Just one word in regard to the point the doctor raised in favor of preliminary iridectomy. When the iridectomy is made, if the patient has pain and squeezes: that is over, he will not have the pain at the time the cataract extraction is done because the iris is not touched. Recently, since we have been using ½ % novocain injection and waiting 10-15 minutes, the patients have not had pain when the iris was grasped and excised. Proceeding, as has been outlined, we get a very satisfactory anesthesia.

Dr. Hartshorne: May I answer Dr. Marsh's question? I will ask Dr. Marsh if he does the left eye with the left hand or the right hand?

Dr. Marsh: I operate upon both eyes with the right hand.

Dr. Hartshorne: I don't believe in operating upon left eyes with the right hand. I make my students and interns learn to do the left eye with their left hand just as well as the right eye with their right hand. That is probably the trouble, because your assistant is in the way with the speculum. If you were doing it with your left hand, he wouldn't be in the way.

As to the after-toilet, the way we do it is this The speculum is removed as soon as the lens is extracted, the eye is closed for a few moments, and the upper lid is then lifted with a muscle hook. If you do a combined operation the speculum is somewhat in the way for the iridectomy. In the cases where I performed a combined operation, it was in the way, and it was hard to get the iris forceps into the corneal wound. When it comes to trying to do the peripheral buttonhole iridectomy, I am not sure what I will be up against, because the hand may be in the way. I think there is a very small Hess iris forceps I can use which will perhaps get in there more easily. Yet a great deal of that can be controlled by the assistant sliding the blade of the speculum from one side to the other. So you can still get in from one side. Dr. Wiener does his left eyes with his right hand and uses the Green speculum and doesn't find it difficult, but I never have done a left eye with the right hand.

THE DOCTORS

Edgar A. Guest

I like to talk with business men, with bankers and with clerks,
And I can spend a pleasant hour with any man who works,
I like to talk with lawyers, and with artists now and then,
But still I think I'm fondest of a certain class of men.
I think, although with any man I'm glad to share a jest,
The doctors are the ones I really like to talk to best.

The doctors have so much to tell I want to know about,
I like to hear the surgeons talk of what they've taken out;
The brains and lungs that day removed from women and from men
And all the marvelous things they've done to make them well again.
It may be I am strange in this, but I can sit all day
And listen to the wondrous words a doctor has to say.

When comes my doctor in to me to sit beside my bed,
Although I've called him in to work, I hope he'll talk instead.
I like to hear the things he knows, the things he's done and seen,
For I am curious about this flesh and blood machine.
And though he is a busy man, I make him earn his fee
By getting him to sit and talk an hour or two with me.

Now bankers talk of money, and your artists talk of art,
And there's a sort of wisdom in the knowledge they impart,
But doctors talk of life and death, the cause and cure of pain
And there's a fascination in their speech that I can't explain.
I like to talk with doctors, and I hold their friendship great
But I hope they'll never say to me: "I guess we'll operate!"

JOURNAL OF THE MEDICAL SOCIETY OF NEW JERSEY

Office of Publication: 14 SOUTH DAY STREET, ORANGE, N. J.

Entered at the post office at Orange, N. J., as second-class matter

PUBLICATION COMMITTEE

CHARLES D. BENNETT, M. D., Chairman, 300 Broadway, Newark, N. J.

EDITOR:

HENRY O. REIK, M.D., F.A.C.S., Vermont Apartments, Atlantic City, N. J.

Each member of the State Society is entitled to receive a copy of the JOURNAL every month. Any member failing to receive the paper will confer a favor by notifying the Chairman of the Publication Committee of the fact.

NOTE.—The transaction of business will be expedited, and prompt attention secured if:

All papers, news items, reports for publication and any matters of medical or scientific interest, are sent direct to THE EDITOR, Atlantic City, N. J.

All communications relating to reprints, subscriptions, extra copies of the JOURNAL, books for review, advertisements, or any matter pertaining to the business management of the JOURNAL are sent direct to THE CHAIRMAN OF THE PUBLICATION COMMITTEE, (address above), Newark, N. J.

CHANGING CONDITIONS IN MEDICAL PRACTICE

A visitor from another state, no less important than the President-Elect of the Medical Society of New York, Dr. William H. Ross, in a very interesting article to be found on page 876, describes some of the economic changes of recent years and warns us to expect others, perhaps more devastating in character, unless the organized profession gives heed to the public demand for better service. Dr. Ross finds that there is some justification for the complaint that some of our number are incompetent practitioners because of failure to keep step with advancing medical science, and also for the public discontent arising from the fact that the profession as a whole has not kept pace with a rapidly changing world by greater practical application of its increased knowledge in the field of scientific medicine. Both findings are quite in line with what the officers of our state society have been constantly preaching for several years past, and some of the other suggestions in his paper are deserving of special consideration.

Our state society Welfare Committee is doing all that Dr. Ross would require of his "Public Relations" Committee (the same thing by another name), but it must be admitted that some of the county societies have not realized the importance of having a similar committee to look after local matters; and it is true also that there still is much to be done by the state society. In New Jersey very satisfactory relations exist between the state medical society and those medicosocial organizations that are engaged in work bearing upon medical problems. Greater activity on the part of some of the county societies would help materially to solve disturbing local questions, and it is hoped that some kind of a public relations committee will soon be provided and set actively at work in every one of our component county societies.

With reference to postgraduate instruction for the busy practitioners in rural and small town districts more or less remote from medical teaching institutions, we expect to submit in next month's Journal a report from a special committee appointed at the state society convention last June to engage with Rutgers University for the offering of courses of lectures throughout the state at a very small charge to subscribing physicians; such courses to be made available through the county medical societies.

There are other questions touched upon by Dr. Ross that for solution will require the combined wisdom of all the members of our profession and it is for that reason we ask you to read his paper, and urge you to attend county and state society meetings to give of your wisdom toward the solving of these problems.

CONFERENCE OF SECRETARIES AND REPORTERS

The Annual Conference of the Secretaries and Reporters of our county medical societies was held at Trenton, November 6, and we are publishing in the Department of Current Events this month a full report of the proceedings; a report that may be read with profit by every member of the state society. Unfortunately, we are compelled to say of this gathering as we do of the majority of medical organization meetings that it was not as well attended as it should have been. Seven counties, just one-third of the whole number, were not represented: Cape May, Hudson, Hunterdon, Middlesex, Monmouth, Salem and Union. Eight counties, a trifle more than one-third, were represented by only 1 officer: Bergen, Camden, Essex, Morris and Warren each by the secretary; Atlantic, Gloucester and Somerset by the reporter. Only 6 counties, Burlington, Cumberland, Mercer, Ocean, Passaic and Sussex, a trifle under one-third of the whole number, were represented by both officers, secretary and reporter, and in 2 of these instances (Mercer and Passaic) both offices are held by one person. Expressed in another manner, of the 37 individuals serving as secretaries or reporters to the 21 county societies (5 counties elect the same man to fill both offices) only 18—just one-half of the whole—participated in the conference. We wish somebody would tell us why.

The program was an excellent one, and serious consideration was given to the choice of time and place of meeting. When these conferences were held in association with the annual convention of the state society complaint was made that attendance was inconvenient because of the many other important affairs demanding attention at the same time; which seemed perfect justification for determining that future conferences should be held separately. Last year's conference was held in midwinter, and there was considerable objection to the chosen date on the score that it was not convenient for practicing physicians to attend the meetings at that season of the year. This year the president and secretary of the conference made earnest efforts to ascertain what time of the year would be most agreeable to the majority and, in accord with the consensus of opinion, selected the first week in November. A review of the records shows that the percentage of attendance is almost exactly the same under all these varying circumstances. At regular county society meetings, an average attendance of 50% of the members may be looked upon as creditable, but a 50% attendance at a conference of officers does not appear to be so creditable; especially when such a conference is devised for the specific purpose of aiding those officers in the conduct of work entrusted to them by their confréres.

We make the above criticism while fully realizing that among the absentees from the recent meeting—and quite likely it has been true on other occasions—were some of the very best officers our county societies have ever had. They were not all absent because of lack of interest or failure to appreciate the importance of their obligations of office; but, on the other hand, neither were they all absent because of emergency calls received at the last moment.

The question we desire to pose is: Why can we not secure for such important meetings of carefully selected officials more than a 50% average attendance? We invite answers to the query so that we may aid the committee charged with preparation of next year's conference, and may encourage its members to hope for better results.

MEMBERSHIP IN THE COUNTY SOCIETY

At the recent conference of secretaries and reporters one of the delegates raised the question of eligibility and the extent to which the organization should go toward attaining a membership embracing all the eligibles in the county. A very interesting discussion ensued, as you may learn by reading the proceedings published in this number of the Journal. The majority of those speaking advocated a liberal interpretation of membership requirements and a charitable attitude toward applicants. Some good sound advice was given by the

president of the conference, who in a very few words outlined the proper course of procedure. It is painfully evident that prejudice against some and ignorance of the true character of other neighbors not yet enrolled has not infrequently kept very good men outside the organization. It is so easy to believe that the other fellow is not as good as he should be, and then to prevent his admission; despite the patent fact that the organization embraces in its ranks some members, fortunately few in number, who are by no means immaculate. It has been admitted before that a certain percentage of physicians eligible to membership in county societies are not "joiners" and cannot be induced to accept election. Efforts should be made, however, to bring in all such individuals, and steady and persistent efforts should be made to enroll every eligible member of the profession in each county. We desire to strengthen the organization by effecting a complete enrollment; and we wish to confer upon every reputable physician the benefits derivable from organization membership. It goes without saying that it is undesirable to add to the roster the name of any person who is known to be disreputable or who is reputable but too cantankerous to make a congenial associate. But there are not many physicians who can be designated for either of those classifications. No otherwise eligible physician should be kept out of a county society, and deprived of the benefits of organization, merely because of rumors or insinuations of unprofessional conduct; such rumors or hinted charges should be investigated and the fellow practitioner should be exonerated if not proved guilty of the alleged improprieties.

We have elsewhere directed attention to rumors of fee-splitting among physicians and surgeons who hold membership in our society; who are members also of such national organizations as the American College of Surgeons, which has made a point of denouncing this unethical procedure. We have urged that such rumors be run to earth by a properly authorized investigation on the part of the national and state societies, and we hope such a searching inquiry has now been started in this state. Yet we see candidates taken into or held in membership in the face of suspicion of fee-splitting, and others kept out of societies on rumors of less serious misconduct; and here we feel inclined to say that the practice of fee-splitting is a much more serious offense than, let us say, the production of abortion. Neither is commendable as a habit and we are not defending either. But if we had to choose between association with a fee-splitter and an abortionist, we would unhesitatingly vote for the latter. The abortionist has generally at least the excuse that he was *doing a kindly service* to a human being in trouble, while the fee-splitter is unjustifiably *doing* his victim because he is in trouble.

There are 3 things that organized medicine needs to do with reference to membership in its ranks: (1) Investigate in a judicial manner all apparently well-founded stories of irregularities on the part of physicians and surgeons, whether such persons are only candidates for membership or are already enrolled as members. (2) Refuse admission to candidates proved guilty of unprofessional conduct, and cast out from the ranks such members as may be proved guilty of similar misconduct. (3) Be charitable and liberal in the consideration of applicants against whom such misconduct has not been proved; charity and liberality should be shown in all cases, but it is absolutely wrong, and it injures the entire profession, to shield one set of alleged "bad actors" and reject another.

GROUP INSURANCE

We call particular attention to the present Statement on Health & Accident, and Automobile, Insurance (section of "Communications") and the changes which have been recently made.

The Health & Accident policy is one particularly applicable to the contingencies, in accident and illness, of a doctor's life. And above the general importance of such insurance this group policy brings added advantage —exemplified in some cases the past year— of having a committee of our society aiding mutual understanding and settlement of claims

with the underwriters, where without such a friendly medium misunderstanding could hinder settlement. Note the ability of members of any age to get this policy, whereas others outside are subject to exclusion on age, so disappointing to one who reaches that limit after paying premiums, perhaps, for many years. Yes, inclusion of those over 60 years still allows a low premium to those who are younger, (and we are told that claims of the older members have been fewer and lower than of the younger). This policy cannot be canceled during the policy year; so, if one holds receipt for premium paid he is perfectly protected under all circumstances.

The new law on "financial responsibility of automobile drivers" brings greater importance to this liability insurance and here members of our society have an advantage in low cost. The committee offers to give to enquirers a pamphlet giving a digest of the law, and this we advise every one interested to get. The new policy on "fire and theft" offers improved facilities and greater convenience than before, besides being issued from the same source as the liability policy and at a saving discount.

DIABETIC COMA

In Massachusetts, where an active campaign has been waged against diabetes, a recent survey of the results indicates a tremendous gain in control of that disease For instance, it shows that diabetes in patients under the age of 20 has almost disappeared and that between the ages of 20 and 49 the mortality is lower than at any previous time in this century, whereas above the age of 50 there has been a gradual rise. It is further shown that this rise does not begin for men until the age of 60, so that it is women above the age of 50 who are chiefly responsible for the increasing death rate in Massachusetts.

The Metropolitan Life Insurance Company has recently shown that in 1044 fatal cases of diabetes reported to them this year up to April 15 coma was responsible for 433 deaths, or 41%. Now, responsibility for the continued, if not increasing, high rate of mortality rests to some extent upon the medical profession, because diabetic coma is always preventable and nearly always curable. Indeed, coma develops because of ignorance, negligence or carelessness. Diabetics go into coma carelessly when they break their dietary rules and overeat; they go into coma as a result of negligence when in the course of an infection, either general like measles or local like a boil, they neglect to make the proper tests to determine whether they are using enough insulin; they go into coma ignorantly, because they stop their insulin when they cease to eat, for one cause or another.

A diabetic should never omit his insulin unless his urine is sugar-free. He must never forget that when he stops eating food he begins eating himself—his own body—and so still requires insulin and often very much more insulin than before. The only safe way, therefore, for the diabetic to protect himself against coma is to keep well and sugar-free all the time. Minor differences in the treatment of coma exist, but all agree that promptness in diagnosis is everything and next to it comes energetic treatment at the earliest possible moment.

REVISING THE PHARMACOPEIA

The Pharmacopeia of the United States of America is about to undergo another revision, the date of the convention for that purpose having been set as May 13, 1930, and the place as Washington, D. C. Our delegate to that convention will be Dr. J. F. Anderson, of New Brunswick. The task of revision is a large and important one, and in order that the work shall be done with satisfaction to the greatest number the Committee on Revision invites any interested physician to make recommendations as to products and preparations that should be included or excluded. If you desire a printed questionnaire list of such drugs and preparations, for checking, please address your request to Mr. E. Fullerton Cook, 636 South Franklin Square, Philadelphia.

Travel Article

THE OLD SPANISH TRAIL

Charles D. Bennett, M.D.,

It was more than that. It was the old Road to Romance and the Road to the Great Beyond when "Beyond" meant an unknown land, peopled with unknown races, and alluring because of the tales of golden treasures that were to be found in those fabled regions.

Along this road passed the old time Spanish explorers, the Cavaliers and the Conquistadores with their troops clad in shining armor and riding their prancing steeds brought from the sunny hills of Spain, who spurned with their high stepping gait the muddy swamps of these low lying lands. And so they wandered. From the springs of eternal life in Florida to the hidden gold and jewels so vaguely thought to be in the Golden West and the warm southland of Mexico.

The Latins have left their marks on all the region through which this glorious trail meanders. Following along the northeastern shore of the Gulf of Mexico from the western extension of Florida, past the beautiful bays of Pensacola and Mobile, crossing Biloxi Bay, you meet everywhere the evidence that the French and Spanish have preceded you. The names of villages, rivers, bays, and peninsulas all suggest their Latin origin and the speech of the native residents also shows this same leaning; all showing tendency to dwell a bit on the last syllable of a word, and with this comes as a pleasant modulation the slow, lazy, speech of our southern people. As our host, in correcting our broad and uncompromising pronunciation of "Biloxi", said, "Say it more like Biluski—just sort of lazy like".

Biloxi, however, is not Latin but Indian. When, 230 years ago, the Sieur d'Iberville, visited this portion of the Gulf Coast, he met the tribe of Biloxi Indians, and in recognition of their kindly greeting, gave the new settlement their name, which in the Indian language means "The First People". These old peoples have disappeared but we found the present "Later People" also kindly and friendly. Perhaps the balmy weather of this restful land has its part in developing kindly traits.

We reached Biloxi on February 8 by one of the comfortable trains of the Louisville and Nashville Railroad, having traveled the preceding day through orchards of pear trees in full bloom, and through country showing other signs of oncoming Spring.

Our hotel was located on the old trail, now called the West Beach Boulevard, facing a broad lawn running down to the roadway, and just across the road lay the beach and beyond the waters of the Gulf of Mexico; stretching away to tropical lands nearly a thousand miles distant.

Here and there on the lawn were superb live oak trees, always in dark green foliage and with the beautiful Spanish moss hanging from their branches, and among these were scattered immense magnolias, palms and palmettos.

Although this was the middle of winter at our Northern home, here narcissci, stockgillies, verbenas, forsythia, calendulas, roses, pansies and japonicas, were in full bloom and evidently, as these people claim, Biloxi is a four-season resort with winter practically unknown.

There is no surf along this part of the Gulf Coast because about 10 miles out lies a chain of low sandy islands which shut off rough waters of the outer gulf from what is called Mississippi Sound, making these quieter waters an ideal safe region for sailing, fishing or motor boating.

Perhaps 200 feet out in the Gulf, directly in front of our hotel, lay an oyster bed, exposed to view at low water, and here you could wade out and pick your own oysters if you cared to do so. However, most of the oysters for which Biloxi is famed are raked from the reefs of the outer islands and every morning fleets of schooners and motor boats put out for these edible treasures and it was one of our pleasures to watch them go and come in a long procession through the narrow channels of the Sound. Oyster canning is the great industry at Biloxi We visited these packing plants, and watched the oysters being unloaded from the boats, from which they go to a steaming chamber. The steaming renders the shells, which are usually in clumps, easier for the workers to open. They are then dumped on a long table where the openers, who are usually women, slice open the shells and drop the oysters in a pan, which they then deliver to a weigher who credits the worker with five cents a pound. Then the oysters are thrown into a great vat, and covered with sea water to give them the right flavor—after which they are ready for packing in the familiar tin cans which mostly go to Chicago and the Middle West. Biloxi oysters are rather small and of a good flavor, but are certainly more attractive when served on the half shell with proper garnishing than when viewed as

a ton or more of a slippery gelatinous mass, and surrounded by the very positive odors of thousands of shells.

There is no waste at these places. The oyster shells are spread on the roads for rolling and crushing into magnificent roadways, or are all ground into a powder and used on the farms as fertilizer.

Another great industry here is the shrimp packing. But the shrimp are wanderers, now here, now there, and the fishermen chase them and gather them in as best they can. At the time of our visit the shrimp were elsewhere, so we did not see the preparation of this food article, although it was a daily item at our dining table.

The Gulf Coast is famous for its crabs and fish in general, including the Silver King, the tarpon, red snapper, sheepshead, weakfish, and about all the rest of the finny tribe except the whales and sea serpents.

The great land crop is the pecan nut, which seems to have been one of the "First People" here. Acres and acres, by the mile, of pecan trees, planted as systematically and cultivated as carefully as our New Jersey peach orchards. Practically all are grafted trees and they bear enormously. Pecans are served to you everywhere, as the fresh nut and also in a great variety of confections. One meets the old colored praline woman everywhere and this flat cake of pecans imbedded in a mysterious sugar compound is certainly delicious and not to be resisted. The nuts are offered to you also sugared, frosted, salted, in cake and other combinations hard to describe, but always tempting and delicious. The pecan trees are about the last of all the trees to bud in the Spring and at our visit they and the sycamores stood gaunt and bare, awaiting the warm sun of coming days.

The Government has built, for perhaps 50 miles along the coast, a wonderful sea-wall of concrete laid in the step formation, at the cost of several million dollars. Just back of this wall and near the hotel stands the old Biloxi Lighthouse, erected about 75 years ago which still sends out its cherry, guiding rays to the Gulf Coast mariners.

Biloxi is rich in memories but space will only allow mere mention. Here was Beauvoir, the home of Jefferson Davis; just beyond, at Pass Christian, Woodrow Wilson had his summer home; at the Edgewater Hotel, another "almost president" recuperated during the past winter. Here is now a Government Hospital for disabled war veterans in the old buildings of the Mississippi Centennial Exposition; and fronting on Biloxi Back Bay is the Naval Reserve Park, covered with superb oaks, bought many years ago by the Government for the building of wooden war ships and later turned over to the city for a park.

Attractive fishing camps, suburban eating and dancing resorts, delightful woodland roads, vistas of lakes, bayous and rivers, golf links for enthusiasts and wonderful motor riding to nearby historic towns, all go to make a visit to this southern coast region something to be long remembered.

Perhaps the most attractive of our side trips was the ride to New Orleans which we made by motor bus.

On this 105-mile trip we closely followed the shore of Mississippi Sound until near Rigolet, where we swung inland, and crossed Lake Pontchartrain over a bridge 5 miles long. At our approach, a heavy fog lay low over the water and we, on the bridge, were actually out of sight of land and experienced the weird sensation of going to sea in an automobile, watching as we rode a tow of vessels disappearing in the foggy disance. Lake Pontchartrain is a vast body of water, something like 70 miles in length and nearly half that distance in width at its widest part, and the city lies between this lake and the river, the two bodies of water being connected through the city by the artificial navigation canal, or as it is styled—the Inner Harbor.

So, the Port of New Orleans comprises a water frontage of 52 miles all of which is controlled by the State of Louisiana and supervised by a Board of Port Commissioners. Hence, although the city is 90 miles up the river from the Gulf, it is still one of our greatest seaports, serving as an outlet for all the populous region lying to the north and west.

One of the pleasant local excursions is a 30 mile trip up and down the river front in a great sternwheel barge, equipped with dancing deck, and in this craft, strange to our Northern eyes, we followed closely the shore line on both sides of the river, listening to descriptions of all the interesting points given through a megaphone by a voluble guide.

Then we wandered through the old French quarter, feasting our eyes on antiques everywhere; strolled into the old home of the famous chess player, Paul Morphy, now a popular restaurant; viewed the Napoleon House; peered through grilled windows into interiors all carrying their histories of older times; gazed at the above ground burying

vaults in the old cemetery, where, because of the water-soaked ground, it was necessary to bury in four-story tiers of built up cells; the Place d'Armes, where was enacted the transfer from France to the United States of the Louisiana Purchase; Adelina Patti's home; the House that was Haunted; the home of the Confederate General Beauregard; the United States Mint, the oldest one in the country; convents, hospitals, parks, bathing beaches, yachting basins and so many attractive and interesting points that cannot be enumerated in a brief article such as this.

Really, New Orleans is a wonderful city, combining marvelously the old and the new, attractive from every point of view, and well worth a visit with time for leisurely exploration. Here are the evidences of an old régime, of a habit of living very different from the mad hurrying of our people of the North, for while we moderns have gained in many things we have certainly lost some of the grace and loveliness of those older days, and a quiet survey of those, to us, old fashioned ways of living, cannot fail to be of benefit to the unprejudiced student of life. Go then and see these places and peoples for yourself.

Collateral Medical Reading

HISTORY OF MEDICAL PROGRESS

It gives us much pleasure to present for your consideration this month 2 excellent new books that seem to have caught the reading public's fancy and which certainly should be read by every member of the medical profession and all the members of each physician's family. As we have previously remarked, the medical profession cannot afford to have the laity better informed than the family physician concerning general literature that deals with medical subjects. These 2 books are so beautifully written, so attractively presented, and describe the history of medicine through the ages in such a romantic form that they are sure to have more than a passing interest for general readers. They may well become part of the reading vogue this winter—we sincerely hope they will—but they are almost certain to hold for a longer time the active interest of the educated layman. It is upon this basis that we urge members of the society to read both books at the earliest opportunity, but we offer the assurance that, quite aside from the necessity for becoming familiar with such medical history as has thus been given to the public, you will find in this reading a very large measure of profit through the entertainment and instruction acquired.

We would particularly urge members of the woman's auxiliary to read these books, and desire to suggest that either or both books will make good reading matter for entertainment, study, and discussion at meetings of the county auxiliaries. Such reading and study courses have been recommended as part of the program for county auxiliary meetings in order that our women may become better acquainted with the history and the ideals of the profession, and for the purpose of securing an accurate working knowledge of the medical problems of the present day; so, we strongly recommend use of these 2 books in that manner.

THE STRUGGLE FOR HEALTH

Richard H. Hoffman, M.D.

(Published by Horace Liveright, New York. Price $3.50.)

The publisher's announcement informs us that the author of this book is the son of a distinguished physician and physiologist, originally of Vienna but for 37 years a practicing physician in New York City, and that he is himself a New York neurologist of distinction and has been an earnest student of medical history. The book itself discloses the fact that the author has literary ability of extraordinary quality and that in his study of history he has ranged pretty completely over the entire field from the earliest medical literary records to the present day.

We could scarcely give a better description of the book than to quote from its preface:

"I was largely prompted to write 'The Struggle for Health' by the fact that in my contact with patients over a period of 20 years, I found them woefully lacking in understanding the nature of 'the ills that flesh is heir to', and that the average patient presented 2 problems: first there was the malady with which the patient was afflicted; second, and just as important, was his mental reaction to that malady usually inspiring apprehension and fear. In many instances, disease is a benign manifestation. It is the knock in the motor that calls attention to a minor defect, the correction of which once more insures a smoothly running machine. It is frequently nature's way of dictating a rest from daily toil

and the stress and strain of living that permits a return to health and comfort.

One thing is true. We are born to die. Sometimes death creeps upon us insidiously and sometimes it comes with swift and sudden stroke. That period between birth and death which is called life, is frequently punctuated by deviations from normal health and point of view, and these intervals of distortion we call disease. I have tried to show in these pages how, since the beginning of time, man has recognized and fought against those diseases that contribute to his suffering and shorten his days.

I have tried to show the romantic side of the pilgrimage for health and to tell my readers of the fantastically heroic crusades that were undertaken in its pursuit. Here and there I have singled out one of the great pioneers who have planted their milestones of discovery upon this endless march toward the enlightening and cheering of mankind. The struggle for health must be the oldest epic in the history of man. We cannot conceive that man ever lived without desiring life, and feel he must have used every form of faith and fact to forestall the grim reaper. At present man is in the very thick of the struggle and day by day he is actually adding to his life span."

DEVILS, DRUGS & DOCTORS

The Science of Healing from Medicine-Man to Doctor

H. W. Haggard, M.D.

(Published by Harper Brothers, New York. Price $5)

Members of the medical profession need no special introduction to the Associate Professor of Applied Physiology at Yale University; the scientific work performed by Professor Haggard and his Associate in Yale, Professor Yandell Henderson, is so well and so favorably known. In a previous book, written for edification of the layman—The Science of Health and Disease—Dr. Haggard exhibited his exceptional ability to describe scientific knowledge in terms of simple English. In this new book he has given us a remarkable presentation of medical history accompanied by numerous illustrations of important medical events. Endorsing "Devils, Drugs and Doctors", Professor Henderson said:

"To overthrow superstition, to protect motherhood from pain, to free childhood from sickness, to bring health to all mankind: These are the ends for which, through the centuries, the scholars, heroes, prophets, saints and martyrs of medical science have worked and fought and died, as are here recounted."

The following announcement by the publishers meets with our entire approval: "No story in the world could be more thrilling than the agelong struggle of man against suffering and disease, but there are few today who realize the magnitude of the horrors from which science and the courageous efforts of medical men have gradually released mankind. Dr. Haggard has gathered here a wealth of authentic material and anecdote in the history of medicine. He describes medical practices among savages, surgical operations performed by the Egyptians, and the ravages of plagues upon our ancestors; and on the basis that the index of civilization is in the care given to the child-bearing woman, he traces the development of obstetrics.

"The volume has been made particularly interesting by the inclusion of over 150 illustrations from quaint old etchings and engravings."

Medical Economics

GROUP PRACTICE IN MEDICINE

Joseph Collins, M.D.,
New York City

(Two of the most serious problems confronting the profession today are involved in the discussion of how best to serve the public and how to keep down the cost of medical care. We are reproducing from Harper's Magazine an article in which Dr. Collins furnishes some food for thought. —Editor.)

"Big Business" has been in the saddle in this country for more than a generation. It sits tight and steers straight and, thanks to its mount, it makes goal after goal. It was hoisted into the saddle by organization. Were it not for organization neither the United States Steel Corporation nor the Roman Catholic Church would be what it is or where it is to-day. Nearly every industry, every great institution, every profession has been subjected to organization save medicine. Every forward movement of civilization has been initiated by individuals and effected by groups.

Organization in medicine at first sight would seem to deny the rule of the jungle, the hovel, and the palace. But in reality it makes not only for the self-preservation of the physi-

cian but for his self-betterment. An individual can practice medicine successfully but not satisfactorily. In the first place, the field is too extensive for him to survey alone and the equipment required for its cultivation is too varied and complex for one man to operate, even though he be as versatile as Albrecht von Haller was. In the second place, the price the patient has to pay for individual medical service is a hardship for the majority, and particularly for those of the so-called middle class.

It cannot be denied that man's right and duty to be healthy and happy can be facilitated and enhanced by organization. That makes it the more difficult to understand why the medical profession has not organized. Some will say that it has, and cite the American Medical Association to prove their case. But the primary object of that guild has been the improvement of medical education and the elevation of the whole profession. Though much altruism has seeped into it in latter years, we must admit that it was founded and fostered for the benefit of the physician and only indirectly for the good of the patient. The sick, to be sure, have profited from it enormously, for the doctor of to-day is in training and equipment quite unlike his predecessor. When the passing generation of physicians took up the study of medicine no scholastic equipment was necessary save ability to read and write; and the student could have the degree of doctor of medicine conferred upon him without ever having attended a clinic, lecture, or demonstration. All he had to do was to sign up with a preceptor, pay for two courses of lectures, each of four months' duration, and pass an examination. Now he has to have a definite amount of schooling before he can register as a medical student; he must work in college, clinic, and laboratory for 36 months; and to feel really qualified for his job, he must supplement this with 18 months' residence in a hospital. The American Medical Association helped us to realize the lamentable inadequacy of our medical training and brought about this reformation. To-day physicians are as well trained in this country as they are anywhere; but they persist in practicing medicine individually, and the result is increasing dissatisfaction on the part of the public and growing discontent on their own part with the rewards of their profession. There are few other fields of human activity, save teaching, in which the material reward is not greater from the display of similar energy, industry, and intelligence. No one ever succeeds in medicine unless he has some native ability, and few succeed unless they have also a dominant urge to work and great strength to permit them to do it. No other profession makes such demands upon time and vitality. Hence, comparatively few physicians make what is called a great success, or in other words, make sufficient money to be able to loaf and invite their souls occasionally and to put their children on the high road to self-realization.

One hesitates to say again that only the rich and the poor get proper medical service. Like all popular sayings, it contains an exaggeration. It is only a portion of the poor who receive appropriate treatment, those who are prudent and intelligent enough to go to a hospital when they are ill or to a clinic when they are indisposed. The rich choose their physicians so often for their bedside manner that they frequently get second or even third-class service. The bedside manner is not inconsistent with intuition, insight, and judgment, but they rarely go together.

Yet it is true that the man who is neither rich nor poor—the self-respecting, self-supporting, substantial member of the community—is often denied the medical service to which he is entitled, because he cannot afford it. The trouble is not that the physician exacts a fee beyond the patient's means, but that the patient must go to so many physicians before he can find out what is the matter with him, and then to so many more, or their subordinates, to get cured. If the first physician consulted by him combines insight with experience, he may be able to make a right diagnosis, but it will often be little more than a shrewd guess. This is not because modern medicine is ignorant; it is because a single individual can know so little of what medicine has learned. We frequently hear it lamented that the good old family physician exists no more. It is as easy to get sentimental about the family doctor as it is about the pangs of despised love. He would be as much out of place to-day as the two-wheel gig that he used to ride in. One of the great glories of medicine is that it has been able to conquer so many devastating diseases; another is that it has made the majority of painful experiences painless; but not the least of them is that it has taken its practice from the realm of guesswork to the realm of certainty. We have not traveled the whole road yet, but we are well under way, and we can hasten our arrival by rational organization which will enable us to do team work expeditiously and efficiently and thus

serve the patient better than any individual possibly could.

We physicians might add to our prosperity by taking a look at other professions, and the first one that we should scrutinize carefully is the law. All lawyers, who are neither obese nor indolent, achieve material prosperity if they are temperate in everything save work and if they become associated with well-organized firms. One member of such a firm makes himself competent in corporate law, another in the trial of cases, another in the drawing of mortgages and contracts, another in trusts and wills, another in finance and its vagaries. A client who goes to such a firm to get a divorce is not turned over to the corporation expert; if he goes to have his will drawn he does not meet the trial lawyer. And when he goes there to have the articles of incorporation of a company or a consolidation written and submits his request to the corporation specialist, he does not expect to get information and instruction immediately. In such an instance the matter is turned over to juniors for investigation. When their work is done, it is submitted to the Chief. He acts upon it with or without conferring with his associates, and in due time the client gets what he is after or is denied it.

On the other hand, a man who is ailing goes to see a physician and expects to be examined on the spot and immediately told what he should do to feel well again. It is preposterous. The physician is constantly given credit for insight and knowledge that no one individual can possess. Fortunately for him, there are methods of examination that reveal or deny the existence of disease with such accuracy that he can rely upon them. The trouble is that he alone is neither competent to make them nor to pass upon them. He would have to have several lives to acquire such competency.

II.

As an illustration of the point I am making, let us take the patient who consults me as I write these lines. His complaint is of dizziness and disturbed equilibrium, followed by nausea and vomiting, occurring at irregular intervals. I know that this association of symptoms is frequently due to encroachment upon the contents of the small semicircular canals which are carefully packed away in one of the most protected portions of the skull and whose function is to maintain bodily equilibrium. I hear his story and make what is known as a physical examination, which reveals that a constant accompaniment of the disease which his symptoms seem to indicate—namely one-sided deafness—is lacking. Moreover, he tells me that there seems to be a relationship between the condition of his digestion and the occurrence of attacks. I note also that his face is lacking in symmetry, one side being distinctly larger than the other.

I think I know the nature and seat of the lesion that is causing his symptoms, but before I am justified in sharing that knowledge with him and advising him to submit to the only treatment that holds out a prospect of relief, I have to get the report of a physician competent not only to examine the hearing apparatus but to make a test which requires much skill and elaborate equipment. I must also have an x-ray of his head, and if this is to be of any value, it must be done by a man who is expert in making plates and interpreting them. I must likewise have chemical and microscopic examinations of his blood and spinal fluid and complete analysis of his gastro-intestinal tract and its contents. In other words, this patient must spend $200 or $300 and perhaps much more before he can find out what he should do, and all because I am incompetent to make the necessary examinations. Why do I thus parade my limitations? Because they are shared with me by every member of the medical profession, and because I am convinced that we can surmount them.

This patient is a man of letters. He considers himself fortunate when he earns $8000 a year. He has a family, and he is ambitious to see that they are properly cared for. Had he twice as many fingers and toes as he has they would not suffice to count the number of physicians he has consulted. The experience that he should have when he seeks medical advice is somewhat as follows:

He should go to the consulting rooms and laboratories of Smith, Jones, Brown, and Levy. Here he would be received by a discerning, affable person who would seek to get enough information about his symptoms to lead him to the appropriate hopper of the medical mill. Before he is taken there it should be ascertained whether he is a wage-earner or a wage-payer. If he is a wage-earner, the firm should then and there collect the equivalent of one week's salary. If he is a wage-payer, $100 should be collected with similar dispatch, and he should be told that he may anticipate supplementary charges should his case require extensive investigation. Then the patient should be given an appointment with a member of the firm in

whose province the symptoms would seem to be, who would examine and pass him on to as many others as are necessary to get a complete report. The patient is now ready for the verdict. The man who gives it to him should know not only the disease but the diseased, and he should always have in mind that man's fears are magnified by illness, his hopes minimized.

When it has been decided what treatment the patient should follow the person who effects it should have nothing to do or say about what it will cost, nor should he profit by the payment save as it increases the revenue of the firm and thus his percentage of the receipts. There should be one charge for the wage-earner, a minimum, and a maximum for the *rentier*.

The surgeon should have his percentage of the firm's revenue just as the trial lawyer has. He may say that he consults his own interests by practicing individually. Doubtless this is true but, save in exceptional instances, he is dependent upon other doctors for his clientele. Bricks are even more essential to the house than bricklayers. If the needs of patients are properly and masterfully met by the surgical members of medical firms, the surgeon who insists on practicing individually, unless he be possessed of unique skill and great resourcefullness, will sooner or later find it to his advantage to do team-work.

At present the golden apples of medicine are within the reach only of the surgeon and surgical specialist. Possibly that is a reason why there is an excess of them and a dearth of physicians and therapeutic specialists.

As things are arranged now it happens frequently that the physician who should get the lion's share gets the lamb's. A man seeking relief from headache goes to an eye specialist who, finding certain changes in the optic nerve, makes the diagnosis of brain tumor and sends him to a neurologist who locates the tumor and advises that its removal be attempted. The ophthalmologist and the neurologist get $25 each—the surgeon gets $2500. It may be said that the surgeon could also have made the diagnosis himself. There is 1 man, possibly 2, competent to do this in a country of 120,000,000 inhabitants.

It is an old story that the physician has the little end of the stick, the surgeon the big; but that is no reason why this state of affairs should not be changed. Were it done properly, the kind of group-practice I have in mind would do away with fee-splitting. It is unethical for a surgeon to hand a percentage of the fee he gets for an operation to the physician who brought the patient. When one meets, on the street or in a club, a surgeon thus addicted it is good form to see him first. The worst feature of fee-splitting is that it promotes bad surgery and precipitates unnecessary operations. But those who get most wrathful and indignant when fee-splitting is discussed are those whose pockets are well lined, just as the harshest judges of the oversexed are those who have no sex urge and those who have it but have been denied opportunity to display it.

It may be said that group practice is adapted to ambulatory patients, but not to those who are seized suddenly and even violently with illness. It should be peculiarly adapted to them. There are 3 reasons for diagnosticating acute disease correctly and promptly: that the patient may be submitted to operation; that he may be immunized; or that he may be segregated. The diseases that require segregation may be diagnosticated by the individual; but satisfactorily to detect and interpret the majority of those who require operation or immunization one must have the services of a laboratory. The municipality or private enterprise provides it, but it would make for the patient's advantage were it provided by the firm.

Suppose one has a chill followed by fever, pain in the abdomen, violent vomiting or a splitting headache, what would be the procedure? The same firm of physicians or one like it should be called on the telephone, and the affable person who answers should be told what the symptoms are. She will send a diagnostician who will know not only how to examine a chest and palpate an abdomen, but to puncture a vein or prick a finger; not only how to take a culture or tap a spinal canal, but how to examine the specimen. Or if it is not in his province to do all this, he will have a colleague who makes a specialty of doing what is outside his field. The man who makes the examination may be the one who should take care of the patient, and he may not be. The case may turn out to be one of pneumonia. Then what must be found out as soon as possible is the variety of organism called pneumococcus that has caused it. The ideal doctor to take charge of the patient, then, is one who can foresee danger signals before they are apparent to the average eye, and who has a wholesome distrust of drugs but knows how to use them when necessary.

There is nothing new about this plan. The most successful medical organization in the

world, the Mayo Clinic, is conducted in this way. It is a huge affair now, with scores of physicians and hundreds of assistants, but a few years ago it was a very small group. One of the reasons it has taken on such vast proportions is that the quality of service which it renders is unexcelled.

No one, I fancy, maintains that the Mayo Clinic has injured the reputation of American medicine and surgery or that it has stolen the bread and cake of the profession. I venture to say that every physician of that institution receives just compensation. If such an ornament to our profession and our country could be developed in a climate and location not particularly attractive or convenient, why could it not be done elsewhere? It can be. All that is needed is head and heart, the former for administration, the latter for coöperation.

The training and experience of the physician seem to unfit him for team-work. It is easy to see that such work deprives him of something which nourishes his vanity. As team-workers, men must share praise, adulation, appreciation; and their individual skill, discernment, intuition, sense, and judgment do not stand out conspicuously. There are many men in the Mayo Clinic who are either in Class A, or on the way to it, and are known only to the profession. Yet they have no clamor for the approbation of the laity; their hands are not weak, and their work is rewarded.

Team-work encroaches also upon a privilege that many of us seem to enjoy, that of being a dictator, but it transfers the bulk of our work upon the realm of guesswork and conjecture to one in which certainty and exactitude may be at least approached. And above all it insures that patients shall be thoroughly examined. It is probably no exaggeration to say that 75% of those who seek medical counsel receive it without having to remove their clothes. It is still considered an indication of common sense to remove the pig from the poke before making the purchase, but we seem to imagine that abnormalities of concealed human organs can be detected, not only through their natural covering, but through clothing!

The chief obstacle to successful group practice is the temperament of the doctor. The more of a "prima donna" he is, the less desirable he will be as a member of the firm. Physicians come to power so early in life that it often takes longer for them to acquire a salutary amount of humility than it does for others whose work is "checked up" from the beginning. For this reason candidates for medical firms should be caught while still plastic and malleable. Group practice, they will find, will tend to correct some of the physician's deformities such as jealousy, envy, and covetousness. It is a great culture medium for humility.

III.

Group practice will accomplish another thing sadly needed in this country. It will develop doctors who know how to care for sick people—therapeutists they are called. We have our share of keen and reliable diagnosticians, but in the field of treatment we do not make such a brilliant display. The number of physicians one encounters in a lifetime who are skilled in the use of water, heat, light, electricity, massage, exercise, and diet, and who know how to utilize the fundamental principles of psychology is astonishingly small. Yet if these measures are put in one pan of the therapeutic scales and drugs in the other, the drugs kick the beam promptly. The more experienced and expert one becomes in the practice of medicine the fewer drugs one uses. Aside from immunizers, antitoxins, and parasite killers, a man may practice medicine satisfactorily to himself with two drugs, opium and digitalis; and if he knows how to use properly the physical measures I have just enumerated he can practice it satisfactorily to patient and public.

One of the commonest complaints I hear as I go among physicians throughout the country is that the osteopath and masseur, the irrigationist and vibrationist, the hydropath and the naturopath, the new thinker and the old doer are bidding for their patients and in many instances getting them. My colleagues have only themselves to blame.

Osteopaths and chiropractors have an erroneous conception of disease, but their ministrations help nature cure disease. No one who has had opportunity to see water used to combat disease will deny its potency, and the benefits that result in chronic disease from the proper use of massage, active and passive, and manual and mechanical movement are often enormous. Something good may be said for all the non-medicinal therapeutic measures. But the physician must know how to use them, and he must tell the world, not with immodesty and vainglory as the quack tells it, but with dignity and assurance, that he knows not only their virtues, but when and how to use them.

A few months ago an able young lawyer addicted to overwork and overeating developed paralysis on one side of the face. In-

flammation of the sheath in which the motor nerve of the face is enclosed had practically severed its continuity. He consulted an eminent physician who advised him to apply heat to the face, to protect with a shield the eye whose lid would no longer close, to take salicylate of soda, and to have electricity applied. There being no improvement after 3 months, he was easily persuaded to go to a chiropractor, who promised to cure him in a few treatments. The promise not being fulfilled, one of the partners of the firm which employed him took him to a young doctor trained in an institute where non-medical therapy is taught. The doctor put him on a diet that took off 20 lbs. overweight, submitted him to daily application of massage and electricity, made him practice grimace-making before a looking glass (aiding the crippled side of the face with his fingers), and advised him to put a support in the sagging corner of the mouth while he slept. The result is that today the function of the nerve is 50% restored. Three months hence the patient will have gained another 30%, and if neither patient nor doctor falters he is likely to make a satisfactory recovery.

Had the patient remained under the care of a physician who gave him medicine and desultory directions about electricity he probably would carry a profound facial deformity to the grave.

The treatment of disease is the art of medicine. As in all arts, a certain proficiency in it may be acquired, but to become a virtuoso one must have a genuine flair for it. The therapeutist of the medical group should be selected with great care. The essential qualities for him to possess are personality and a logical mind.

The ideal doctor-group should have as many trained assistants, not physicians, as it can use. The more the assistant knows about what is properly meant by "medicine" the less fitted he will be for the job. The men and women who use water and massage most expertly in Aix-es-Bains are peasants who work in the fields when the "cure season" is over. The men and women who give carbonic acid, baths, fango applications, resistance movements, Zander exercises, and various other applications in scores of the cure places of Europe know nothing of physiology and pathology; but as a result of their contacts some of them become experts. They are trained attendants who are humiliated rather than puffed-up if someone, seeking to engage their favor, addresses them as "doctor"—a ruse which works here with chiropodists, bath attendants, masseurs, and irrigationists. The therapeutist of the doctor-group would have to teach most of the assistants himself; for aside from a few sanitariums there is no place in this country where adequate and proper training is given. It is enormously to the credit of Yale University that it has taken steps to remedy this state of affairs. The department of therapeutics of any university that does not compel its students personally to experience the application of non-medical remedies does not fulfill its duty. The only way to learn how to use such measures is to try them out on one's self. The therapeutist of the group should spend one holiday in Marienbad, another in Nauheim, another at Aix, another at Lourdes, another at Salssamaggiore, and so on. Should he choose to help patients to expiate some sin of youth he should pass a few weeks in Lamalou.

After he has familiarized himself with European spas, he should remind himself that his own country has at least one, and probably more, that is unexcelled. Until the potentialities of Saratoga Springs are transformed into actualities we shall be nationally humiliated.

It is strange with what indifference, even antipathy, many of us look upon the restorative powers of light, heat, water, electricity, and the different forms of active and passive exercise, and stranger still how little we know or strive to know about what is meant by "diet". Medical schools are silent about it, and in hospitals it is in the hands of a person called a "dietitian". Therefore, the young physician must get information about it by his own effort. The first thing he should do is to provide himself with a rosary of different shaped beads. On the round ones he should say every morning, "One man's meat is another man's poison." On the square ones, "According to the life one lives depends the variety and amount of food." On the triangular, "Some do and some do not eat too much. Those who overeat and under-exercise—women—outlive men." And on the flat beads he should pray twice a day, "Let me not be tempted by fad or faddist."

He will now be ready to find out for his patients what they should find out for themselves were they not indolent or stupid: namely, what kind and amount of food agree with them. "Yes", says the patient goaded by the accusation, "but how do I know that my blood pressure won't go up if I take salt?" No one knows. Sodium chloride agrees with

some persons, not with others. When I hear a confrère extolling the virtues of a salt-free diet, I remind him that the man in New York who practiced medicine most successfully both from a material and scientific standpoint during the earliest years of this century gave patients almost as a routine measure salt and soda every morning, from a half to a whole teaspoonful of each.

To be successful as a dietitian, a physician has to know what the man who tends a furnace or stokes an engine knows. Some fuel burns rapidly, some slowly. Some has far greater heat-producing capacity than others. Some produces ash and clinkers, others not. Then there are questions of draft, of stoking, of removal of ash, of banking, of smothering. Some furnaces burn more than others and produce less heat; some require much attention, others little. It all resolves itself into a matter of the furnace, the coal, the draft, the clinkers, and the ash. The stoker must know about them for his house, the doctor for his patient.

It is too much to expect that a man shall be abreast of the times in his knowledge of the causes and symptoms of disease and at the same time be a psychologist with a predilection toward telling persons who have lost their health how and where to find it. The born diagnostician is never a resourceful therapeutist, and the more deeply versed one becomes in pathology, the more pessimistic one becomes about the potentialities of treatment. The specialist needed now by the medical profession is the therapeutist. He should know something about disease and everything about its possessor. Above everything, he should realize that hope is man's friend and fear his enemy, and that we all have the same desire: *Vivere ardendo e non sentire il male.*

IV.

When the group replaces the individual the public will get better medical and surgical service. It will be within the means of all save the poor, who—it is universally admitted—are cared for now in every self-respecting community. The rich, I suppose, may continue, if they wish, to have individual doctors who "understand their constitutions", who are "such a lamb" or "such a comfort", and who are more skilled in finding out what the patient wants than what he has, more determined to see that he gets it than to make him learn the rules of health and conform to them.

It is difficult now for people out of health to know how to find a "good" doctor. It will be easier to find a good group than a good individual, and when it has been found the seeker after health may be satisfied that a bad doctor will have little chance of getting into it, or that if he should get in he will not stay long. Few stupid men are taken into partnership in the greatest of our banking houses, and one cannot imagine that an incompetent lawyer would be tolerated for long in an equally great firm of corporation lawyers.

Individual doctors are often chosen for their manner; groups will be chosen for their matter. When a patient sets out for the Mayo Clinic he does not know which of the 137 doctors he is going to see. The one who will finally minister to him is the one who is most capable of dealing with his particular disease.

When group practice becomes popular, a man falling ill in a hotel, a new-comer to a community, a stranger to disease will not have to rely on the subsidized room clerk, the interested drug store, the wily advertiser, or the nepotistic clergyman to find a competent doctor; nor will the absence of an individual doctor on holiday or on duty cause consternation among apprehensive parents. The sick man will be able to get the address of a medical group from the telephone central, just as one can now report a fire or call the police; or Academies of Medicine and County Medical Societies will provide the information. It would, of course, be testing the truth to say that every group will be competent, for a number of medical crooks and incompetents might organize. But that would simply be another of life's hazards which we have to endure.

Group practice would also do away with the hokum and buncombe, the pretense and esotericism of medical practice. There would be fewer people "threatened with pneumonia" and fewer patients with a "touch" of typhoid fever. There would not be so many doctors who "just saved my life", but there would be a vast increase in the number of those to whom the detection of disease is a problem to be solved like any other physical problem.

A sick person wants to be made well, or as nearly well as possible; not only to have life prolonged but to have it free from pain. If he has confidence that this can be done, his improvement is facilitated enormously. Thorough examination is a great confidence-inspirer; few things destroy confidence more quickly than to be told, "You will be all right in a few days" when the statement is not based upon searching examination. The day of the oracle in medicine has gone; the day of the investigator has dawned. Competency is

what patients want in a physician; if they can get it blended with kindliness, culture, and understanding all the better. They get it thus blended from "born" doctors and from doctors who have experienced shattering illness. If the group-doctor selects his coadjutors prudently, they will get it from the group.

If a patient wants a doctor to coddle him he should go to an individual; if he wants one to cure him he should go to a group. The reason why hospitals and pay clinics are so successful is that they practice group medicine. The reason why such a small proportion of physicians are successful and affluent is that they have not fully emancipated themselves from being mystics and medicine men.

Organization has thrust efficiency upon medical education, and now it should do the same for practice.

V.

I admit that group practice is not the ideal method of practicing medicine. The ideal way—and I wish it were not generally impracticable — would be for the physician to have his own laboratories and as many assistants to make examinations and investigations as necessary, leaving for him that upon which so much of the success of practice depends, namely the personal relation with the patient.

One can take care of a patient without caring for him, but there never was a good doctor who did not find something in a sick person that aroused his sympathy, excited his admiration, or moved his compassion The good doctor is interested in humanity. Every candidate for the profession should be asked before taking the Hippocratic Oath, "Do you like children and dogs?" If the answer is in the negative administration of the oath should be delayed while the candidate is told that his chances of becoming a good clinician are slim. The person who likes children and dogs will be tender to those who suffer or fear, and this tenderness brings the physician greater rewards than money or position; it earns him the affection, esteem, and confidence of his patients. Not of all of them, but of enough to compensate him for the time, sympathy, and understanding which he lavishes upon them.

If the practice of medicine consisted only in detecting disease and applying measures to combat it, group practice would be ideal; but frequently the person, not the disease, needs examination and treatment. To accomplish this the physician must have a heart as well as a head.

There is no reason why the therapeutist of the group should not have them. But it cannot be denied that the chief objection to the group system is that it might minimize the personal relationship of patient and physician. If we are to have the group system for efficiency's sake—and I believe we must have it —group physicians must be always on their guard against impersonalizing their service.

They must remember that a considerable proportion of the physician's work is not the practice of medicine at all. It consists of counseling, orienting, extricating, encouraging, solacing, sympathizing, understanding. There is nothing in his education that prepares him for this work. To do it successfully he must have a natural inclination for it; and he must learn from experience and from intuition. It is not only the malign microbe that the physician has to combat; it is the unclean spirit. The successors of the 12 disciples ought to have power over the latter, and doubtless if clergymen were able nowadays to win the confidence of human beings to the degree that physicians do, success would attend their efforts more frequently than it does. But although clergymen are often consulted by the cripples of fate, ignorance, and misrepresentation, so many of them look upon the source of the sufferer's symptoms as sin that the confidence of the patient is alienated rather than gained.

The chief reason why physicians are consulted so frequently about matters seemingly beyond their province is that there is a tradition that they are deserving of confidence, and one of the glories of the profession is that its members seem to be deserving of it. What they are told in darkness they do not speak in light, nor are they commanded to preach upon the housetops what they hear in the ear. One of the hardest tasks of group physicians will be to maintain this high tradition, based as it is upon the personal relation between doctor and patient.

Even so, I believe that the advantages of group practice will heavily outweigh its possible dangers. One of our great national assets in this time of prosperity is that there is comparatively little discontent in the brawn of our nation. There is discontent, however, in its brain. Anyone who wishes to perpetuate his name and at the same time contribute enormously to dispel this discontent may do so by endowing hospitals and clinics to which persons able to pay $50 a week may go when they are ill or threatened with illness and get complete, competent medical and surgical service. There should be at least 20 such hos-

pitals in New York City alone, and the physicians who serve them should be adequately compensated, not by the patient, but by the hospital. Such a plan would do away with the baneful financial relation of physician and patient, promote the personal relation, and give the man of moderate means what he is entitled to when he falls ill: the most competent medical and surgical care that the community he adorns or encumbers can provide.

Medical Ethics

SERVICE

John Hammond Bradshaw, M.D., F.A.C.S.,
Orange, N. J.

> A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.—*Principles of Medical Ethics of the A. M. A.*

Now this does not mean that the medical profession is a public utility that can be turned on like the gas or turned off like the water. It is rather unfortunate that many people think that this is the status of the doctor. Carefully note that the above quotation does not eliminate financial gain; it only places it in a subordinate position. And this is right.

We all know that when an individual enters the medical profession with his chief objective the acquisition of wealth he is, in the vast majority of cases, defeated in this object. And in those rare instances wherein he succeeds in this purpose and he does accumulate much money, he is often defeated in obtaining those chief satisfactions of the reward of his labor, namely, true scientific accomplishment, the honor and respect of his fellows—of his colleagues as well as of his patients—and that nameless and indescribable peace of mind that comes to the altruistic worker in a world where the majority only seek to skim the cream.

When business, which presumably owes its *raison d'être* to the accumulation of wealth, in some rare and isolated instance adopts the policy of putting service before profit the wise ones often shake their heads and almost universally predict failure.

Let us read, however, a few words that appeared in the public press only the other day:

"Without profit business cannot extend. There is nothing inherently wrong about making a profit, but profit must and will inevitably come as a reward of good service. It cannot be the basis—it must be the result of service."

Now the man who writes these words has made out, one may say, fairly well in the accumulation of this world's goods, for he has in the space of 30 years brought his business to the point where it pays him a personal profit of $1,000,000 about every 9 days!

It would be a good thing if every doctor appreciated the honor and distinction of being a member of a *profession*. Think of the millions and millions "outside the pale". What a minority we are in all this mass of humanity—all striving for their place in the sun. In one sense we are a privileged class; for no one of us can practice his *rights* unless and until he has fulfilled the educational requirements and the letter of the law. Our duties as well as our privileges are those sanctioned and protected by the laws of the land. It is our duty, on the other hand, to give a *quid pro quo*; it is our duty to preserve the dignity and the honor of our class.

Esthetics

ANGELS AND EARTHLY CREATURES

Poems by Elinor Wylie

(One of the delights of long winter evenings is the opportunity afforded for reading—especially for reading old favorites in general literature, and making the acquaintance of new entrants into the realm of poetic genius. The little volume that bears the title at the head of this column is commended to our readers as worthy of attention; which is something to say in this period of "near poetry" that is foisted upon us. From the Saturday Literary Review, May 25, 1929, we reproduce the following review of Miss Wylie's work by Mary M. Colum.—Ed.)

O Virtuous Light!

If a little vein within me broke,
The blood would frighten your pillow;
But there's brave red earth beneath the oak
And water beneath the willow.

At the little noise our death will make
No red deer need stand still:
Get up; get up, for heaven's sake,
And climb to the top of the hill.

These lines are from a poem called Robin Hood's Heart, in "Angels and Earthly Crea-

tures", Elinor Wylie's last book of poems which she arranged for publication on December 15. On December 16, late in the evening, as she was sitting in a chair, "a little vein within her broke", and in a few seconds she was dead, leaving behind her 4 small volumes of poems which place her among the 8 or 9 important poets in American literature, and one of the few important women poets in any literature. Somewhere in that part of the spirit where generates that sort of knowledge the old theologians called Revelation and the poets Inspiration, Elinor Wylie knew that death was dogging her footsteps and would soon overtake her, and this knowledge colors every poem in her last book—colors and makes still more tragic an almost intolerably tragic vision of life. The wisest of the wise Greeks, after long pondering, was able to hand on to posterity, as the highest wisdom, only this—that it is always better never to be born —and this subtle poetic intellect, after experiencing practically all those things in life that are counted valuable and desirable, wrote down, as the essence of all the wisdom she had extracted from living:

Mortality has wearied us who wear it,
And they are wiser creatures who have shunned
This miry world, this slough of man's despond,
To fortify the skies we shall inherit.

It is not often that the last work of a poet is his or her best: the power of growth of all but a very small number of writers is not very great, and it often happens in the case of poets that no later work surpasses their first or second book. They may acquire a more accomplished technic, but they rarely surpass themselves in profundity of thought or depth of emotion. But it is exactly in these qualities that Elinor Wylie's last book surpasses all her others. Some of the thought in "Angels and Earthly Creatures" is so profound that it is only after many readings that one can get the full meaning of the verses. And the emotion, for all its intellectual statement, is so intense that one is stirred to tears that a human being should have felt so deeply and suffered so strongly. The thought and emotion is often profoundest where the poem seems merely to restate some of the oldest of the inherited beliefs of mankind. That we have a guardian angel is part of the teaching of at least one branch of the Christian religion, and has been a belief of everybody who has endured and survived great blows from fortune. This old belief is thus expressed by Elinor Wylie:

A subtle spirit has my path attended,
In likeness not a lion but a pard;
And when the arrows flew like hail, and hard,
He licked my wounds, and all my wounds were mended;

And happy I, who walked so well-defended,
With that translucid presence for a guard,
Under a sky reversed and evil-starred,
A woman by an archangel befriended.

This is very intellectual poetry, the result of slow, profound thought — thought so wedded to emotion as thought ought to be in poetry, that the two cannot be disentangled. Elinor Wylie thought deeply before she wrote, a power far rarer among poets than is commonly supposed, for most writers if they were frank would confess that they did not think at all until they sat down before a sheet of paper. But she seemed to write little out of a mood or out of passing emotion as many poets do, but nearly always out of complex thought that was entangled in the roots of her experiences, and this made some of her poetry, in spite of its directness, so difficult that it only reveals its secret after many readings. There are poems in this book like O Virtuous Light, This Corruptible, and Hymn to Earth, that have to be thoroughly studied before they yield their full meaning. Clarity of diction and directness of expression were always characteristic of her, but these things cannot of themselves make a profound thought or idea easy of comprehension. Nothing, for instance, could be clearer than the language of O Virtious Light:

Mysterious as steel and flint
The birth of this destructive spark
Whose inward growth has power to print
Strange suns upon the natural dark.

O break the walls of sense in half
And make the spirit fugitive!
This light begotten of itself
Is not a light by which to live!

O virtuous light, if thou be man's
Or matter of the meteor stone,
Prevail against this radiance
Which is engendered of its own!

This is very clear in its expression—it has even a mathematic clarity like a poem of Paul Valery's; it states a truth long pondered over with a pitiless elimination of all unnecessary explanations, an intellectual truth that has emerged from her own conflicts. It contains, to use a phrase of Valery's, an expression of one of those truths which for her had become her flesh, yet that makes the perception of it none the less difficult to the reader. One, she has discovered, can place too high a value on thought. Those who live in the

world of the intellect, by the light of the intellect, are living too dangerous a life for human beings, for this light, "begotten of itself, Is not a light by which to live". The thought which she expresses in this radiant poem, too radiant, perhaps, in its excess of light, is similar to a thought Valery has expressed: "Let us follow a little further the slope and temptations of the spirit. If, unfortunately, we follow it without fear, it leads to no real foundation, for our most profound thought is closed within invincible restraints."

This intellectuality of hers places her in the advance guard of contemporary poetry, among that band of poets and thinkers who, while realizing that their own distinction rests so greatly on a certain splendor of intellect which is the gift of the *Zeitgeist* to the best of our contemporary writers—who, while realizing this, realize also that intellect can be dangerous and limited, and that an arid and sterile intellectualism might become the vice of this age as sentimentalism became the vice of Rousseau's, and that an intellectual nebulosity is the worst of all nebulosities. But as Valery is saved from the faults of great intellectuality by the clarity of his mind, by the beauty of his language, and the music of his metres, Elinor Wylie is saved by the intensity of her emotion and the tragic profundity that is at the back of all her thought. Her poetry has, we must admit, little of that charm which is characteristic of the poetry of Emily Dickinson, who must also be counted among the 8 or 9 important American poets, nor has it very much of what is called feminine quality —the word "feminine" is not here used with the slightest derogatory meaning, even though it necessarily contains a somewhat delimiting implication. Nothing can better show the difference between feminine and poetry that cannot be so labelled than a comparison between a poem of Browning's, A Woman's Last Word, in which he assumes the emotions and attitude of a woman, and a poem of Elinor Wylie's on the same theme. Let us take Browning's lines:

> Teach me, only teach, Love!
> As I ought
> I will speak thy speech, love,
> Think thy thought.—
>
> Meet, if thou require it,
> Both demands,
> Laying flesh and spirit
> In thy hands!

Beautiful poetry, indeed, feminine and touching, and many women must have felt that it expressed them better than anything written by a woman. But it seems barely to touch the fringe of things in comparison with this revelation from "Angels and Earthly Creatures" of the heart and mind of a proud, spiritual woman suddenly realizing that she is made of flesh and spirit:

> I have believed that I prefer to live
> Preoccupied by a Platonic mind;
> I have believed me obdurate and blind
> To those sharp ecstasies the pulses give:
> The clever body five times sensitive
> I never have discovered to be kind
> As the poor soul, deceived and half-divined.
> Whose hopes are water in a witch's sieve.
>
> O now both soul and body are unfit
> To apprehend this miracle, my lord!
> Not all my senses, striving in accord
> With my pure essence, are aware of it
> Save as a power remote and exquisite,
> Not seen or known, but fervently adored.

The sonnet-sequence from which this is quoted has a curious quality of spontaneity, a lyric abandonment not usually associated with the sonnet form, and particularly not with sonnet-sequences. The vocabulary is very surprising, because while so alive and fresh, it is so thoroughly, so completely, in the high traditions of English poetry, that we can almost tell every word was used before—we recognize a phrase, a turn of speech, as the twin of something Shakespeare used, or Donne used, or Milton used. Inside this mould of form, this mould of language, used and re-used by a long line of poets, she designs new patterns of emotion, weaves new webs of thought. She who so loved opposed things must have greatly loved expressing her free mind inside such solid, unshaking boundaries. There was always something in her that delighted in contrasts and antitheses: her types were the Eagle and the Mole, her nets, Nets to Catch the Wind; she did not care for half-way houses, half loaves, the "middle mind", or "the moderate soul".—

> The worst and best are both inclined
> To snap like vixens at the truth;
> But, O beware the middle mind
> That purrs and never shows a tooth!
>
> A pinch of fair, a pinch of foul,
> And bad and good make best of all;
> Beware the moderated soul
> That climbs no fractional inch to fall.

She must have been grateful to old John Donne that he gave her the title of her last book, "Angels and Earthly Creatures", so sharply antithetic in her own daring fashion. One hopes that that archangel who, she tells us, befriended her in knightly servitude "under a sky reversed and evil-starred", will still befriend her throughout the "Uranian years", under a fair sky, where all the good stars meet.

Observations from the Lighthouse

ROLE OF THE BANANA IN DIET OF INFANTS

Recognizing the food value of bananas as "the poor man's fruit" because they are plentiful and cheap, nutritious and easily digested, L. Von Meysenbug (New Orleans Med. and Surg. Jour. 82:74, Aug., 1929) has made a series of observations on their use in the routine dietary of infants between the ages of 4 months and 2 years. In this, his third paper on the subject, he brings his report up to 250 babies so fed.

"In selecting a banana to be fed to a baby, it is essential that a number of requirements be fulfilled. In the first place the banana must be thoroughly ripe and time must be taken to explain to the mother what is meant by this. There must be no green in the skin, it must be entirely yellow with black spots or the skin may be brown provided the pulp is not mushy or brown. Secondly the banana must be completely macerated, preferably through a fine wire mesh sieve. Lastly, judgment must be exercised in not giving too much to babies. They all love it and would eat any quantity.

In my records of banana fed babies, I find that of the total number of 258 there were 3 whose stools became quite soft with a tendency to diarrhea. In each instance it was discontinued. One baby vomited every time banana was given.

The constipated babies were greatly relieved; for the most part no other measures being directed against the constipation. The stools change in respect to color and consistency after banana feeding. They assume a grayish color, are soft and frequently show small black threads. In the absence of diarrhea there is no increase in the stool fat as shown by Soudan 3 staining.

When starting a 4 or 5 months' old baby on banana feeding, 1 teaspoonful only of the mashed pulp is given for the first few days. If well tolerated it is increased cautiously up to 6 or 8 teaspoonfuls. If the baby refuses it the first time, it is offered again on subsequent days and the dislike invariably changes to a desire for more.

Of the disease in which banana has a definite therapeutic indication, celiac disease and scurvy are representative. Numerous reports in recent years have clearly indicated that in celiac disease the banana carbohydrate is the only form of carbohydrate that is tolerated and it is thus a valuable addition to an otherwise monotonous protein diet.

In clinical and experimental scurvy, the banana is curative. Because of its low protein content banana is a valuable adjunct to the dietary treatment of nephritis."

Appendicitis in Children Associated with Epidemic Respiratory Infections

Harold J. Freedman (Arch. Pediatrics 46:604, Oct., 1929) reports 42 cases of appendicitis in children traceable to or associated with an epidemic of infectious tonsillitis or nasopharnyngitis. Reviewing the clinical histories of these patients, Freedman says:

"An unusually large number of appendiceal cases seen with injected throats suggested that there may possibly be an acute appendicitis accompanying an acute upper respiratory infection. The most important clinical means of arriving at a diagnosis were found to be the presence of localized abdominal tenderness, spasm, or rigidity on physical examination.

Conclusions

(1) Appendicitis may occur as a sequence of upper respiratory infection.

(2) Perforation was frequent in the earlier years.

(3) The white blood count, temperature, and pulse were on the average higher in ruptured appendicitis than in simple appendicitis.

(4) The extreme ranges which the white blood count, temperature, and pulse may take make them of little contributory value so far as differential diagnosis is concerned.

(5) The finding of an increase in the white blood cells in the urine is quite common in appendicitis.

(6) Nausea and vomiting are usually found in acute appendicitis and practically always found in ruptured appendicitis.

(7) Diarrhea is exceptional; constipation more common.

(8) Postoperative discomfort was reduced in the toxic cases by repeated administration of saline hypodermoclysis.

(9) A leukopenia may be indicative of severe toxicity and over-whelming infection.

(10) The finding of localized tenderness and spasm in the abdomen is more important than any other clinical signs in the diagnosis of appendicitis."

Mortality of Appendicitis in Children

According to Herbert E. Coe (Northwest Med., 28:416, September, 1929) the mortality rate of appendicitis in children is much lighter than that for the same disease among adults.

"In attempting to account for this many reasons have been advanced, but by subjecting these to a critical analysis it would seem possible to reduce them to 5 which are inclusive and fundamental and which we may term mortality factors. They are (1) difficulty of diagnosis, (2) delayed medical attention, (3) the misuse of purgatives, (4) physical conditions peculiar to children, and (5) poorly timed and poorly executed operations. All of these factors unquestionably influence the mortality rate, but cannot their influence be reduced or even eliminated? In view of the present distinctly upward trend of the death rate a candid discussion of them would seem timely.

The Difficulty of Diagnosis. Why is the diagnosis difficult? The reasons most frequently heard are that children are constantly having more or less transient pains in the abdomen, that they vomit on the least provocation and from a large variety of causes, that acute respiratory infections and acute contagious diseases are often initiated with abdominal symptoms, that children are so hard to examine satisfactorily.

Will these reasons bear careful scrutiny? Does the normal child have frequently recurring pains in the abdomen? Certainly not. Such pains call for a determination of the causative factor, whether it be appendicitis, dietetic irregularity, enteritis, respiratory infection, inflammation of extraäbdominal structures or other cause. The fact that children frequently do have pains in the abdomen, with or without vomiting, cannot be used as a cloak behind which we may hide, if

we have failed to eliminate appendicitis as a cause.

The difficulty in differentiating an acute respiratory infection from appendicitis is occasionally great. This is a real diagnostic hazard, and frequently necessitates a most careful estimation of the physical and laboratory findings and the history of previous attacks or exposure to respiratory or contagious disease. Failure to obtain a satisfactory examination of the patient is rarely excusable. No matter how spoiled a child may be, if he has an acutely inflamed appendix he is in a chastened frame of mind, and if we are unable to examine him it may be safely assumed that the fault lies with our own psychologic or physical methods rather than with the child.

Delayed medical attention has a distinct influence upon the mortality rate. This is a difficult factor to control because fundamentally it depends upon the observations and judgment of untrained minds, complicated by social and financial conditions. It is hard for the average mother to know when to call the doctor. In many localities the cults have effectively prevented her from obtaining any knowledge of anatomy and physiology in our public schools. The factor of delayed medical attention has a great influence upon the mortality rate and it can be reduced only by persistent education of the laity.

The misuse of purgatives causes a sharp rise in the mortality rate, and while the influence of this factor has frequently been called to our attention, the results which are constantly appearing upon the operating table would seem to warrant further emphasis. Through recent efforts of the American College of Surgeons movies have been made available for medical groups which show the state of constant intestinal unrest produced by peristalsis in the normal abdomen, and which make it easy to picture the veritable lashing of the intestines which must follow the use of irritant cathartics. The effect of such action upon an inflamed, edematous appendix, about which nature is endeavoring to build a protective isolation of adhesions, is all too clear as is also the rapidity with which a localized peritonitis would be converted to a general one. Any aid to evacuation must be used with extreme caution and at certain stages not even the gentlest enema should be permitted, as there is evidence that the introduction of fluid into the rectum causes some degree of peristalsis. At certain stages of inflammation it is reasonable to believe that a nonirritative saline, such as milk of magnesia, may exercise a beneficial effect by withdrawal of fluid from an edematous area, but it should be administered after careful study of the condition makes it seem advisable.

Physical conditions peculiar to children. Is the peritoneum more susceptible to infection. This is hard to believe after repeatedly seeing cases recover as soon as proper drainage and removal of infectious material has given the peritoneum an even chance. Here, again, the instances where peritoneal resistance breaks down are those in which early perforation or delayed medical attention has permitted massive infection to overcome resistance.

Does the child generally stand infection poorly, or in other words is his resistance usually low? Such a contention is almost absurd. It is well recognized that the resistance of nurslings is so high that they rarely contract contagious disease. The resistance to diphtheria and scarlet fever, as shown by the specific Schick and Dick tests, is greatest in early childhood. In children the reaction to vaccination is usually mild, indicating a certain amount of resistance even to small-pox. Why, then, should we, in the face of the fact that all known specific tests of resistance rate the child high, contend that his resistance is low to pyogenic bacteria and colon bacilli which normally inhabit his skin and alimentary tract and to which he should, therefore, have developed an almost specific resistance. The answer is not a normally low resistance but rather a massive infection from early perforation overcoming a normally high resistance.

Poorly timed and poorly executed operations. It is frequently stated that the time for operation is as soon as appendicitis is diagnosed or suspected. This has the one excuse for existence of any inflexible rule, and it holds true for the majority of cases, but we cannot hide smugly behind it. We are attempting to reduce mortality and this rule will not do it. On the contrary, it is a direct cause of preventable mortality.

Immediate operation is indicated in the early acute stage before perforation, and in the acute stage of general peritonitis before adhesions have formed or resistance has dropped. It is contraindicated in the early stage of localization after rupture. This is the danger stage in which the postoperative mortality is high.

When there is a history of symptoms gradually increasing in severity over a period of 3 or 4 days, the patient is often seen first during the danger period. The appendix has been relieved by partial or intermittent drainage into the cecum, the irritation of the peritoneal coat has gradually increased with the resultant formation of adhesions, the child has become dehydrated and undernourished by vomiting and finally the failure to improve, coupled perhaps with the sudden sharp pain of final perforation, causes the parents to seek medical attention. It is here that much of the preventable postoperative mortaliy occurs. The surgeon with the inflexible rule goes blindly ahead, upsetting the delicate balance of a returning resistance, breaking down protective adhesions, spreading infection, piling operative trauma upon dehydration. How much more rational it is to wait until dehydration is overcome, nutrition is improved, resistance has risen and the positive phase of immunity has arrived. The mortality rate when such a course is followed can be markedly improved.

It is self-evident that the operative procedure influences the mortality rate. In the early acute case, with few or no adhesions before or after perforation, the appendix is of course removed. In the more advanced cases, where there are many vascular adhesions, edema, beginning abscess formation, with the appendix forming part of the protective wall, and the general condition of the child only fair, it certainly is not good surgery to open up new tissue spaces, break down the protective wall, invite dangerous oozing or general peritonitis, and prolong the operative trauma by removing the appendix. Such conditions call for a quick, simple drainage of the abscess. The absorption of toxic material is stopped, the general condition can be improved, the sinus closes and the child soon resumes his normal activities. Then after 3 to 6 months the appendix can be removed with a minimum amount of danger. It is astonishing how completely the troublesome adhesions will disappear during this time, leaving perhaps 1 or 2 fibrous cords at the point of the previous perforation.

There is no edema of infection and the condition of the child is such that there is minimum operative risk.

When there is general peritonitis with free pus in the peritoneal cavity, no localizing adhesions, infection of peritoneal surfaces and general toxemia, the indication is to remove the toxic material as completely as possible and drain without disturbing the appendix. Such a course has saved many children, while to remove the appendix is flirting with a high mortality rate. In these cases the postoperative care is especially important in combating dehydration and acidosis."

Communications

BOARD OF MEDICAL EXAMINERS

(Letter from the Secretary, Dr. Charles B. Kelley, November 9, 1929).

Am sending herewith a list of recent prosecutions:

June 4, 1929, Panayiotis, a Greek healér, of Jersey City, was convicted for the third time in the First District Court of Jersey, of practicing medicine without a license. The penalty of $500 was imposed but his attorney served notice of an appeal to the Supreme Court.

June 4, 1929, Florence Marco, a licensed midwife, of Jersey City, pleaded guilty to a charge of practicing medicine without a license and paid the penalty.

June 11, 1929, Mary M. Summers, who conducted the Institute of Christian Psychology, of Plainfield, N. J., pleaded guilty to practicing medicine without a license and paid the penalty.

June 12, 1929, Agnes Nipping, connected with the Somerville Health Resort, Somerville, N. J., pleaded guilty to practicing medicine without a license and paid the penalty.

June 20, 1929, William Wolper, a druggist, of North Arlington, and Frank J. Liddy, M.D., of Mahwah, pleaded guilty to practicing medicine without a license and paid the penalty.

July 9, 1929, Harry B. Hart, of Elizabeth, pleaded guilty to practicing medicine without a license and paid the penalty.

July 11, 1929, Samuel Kahn, a druggist, of Somerville, pleaded guilty to practicing medicine without a license and paid the penalty.

July 16, 1929, Ellsworth Pierce, a Naturopath, of Bridgeton, pleaded guilty to practicing medicine without a license and paid the penalty of $500. He continued practicing at Ocean City and was again arrested on September 4. This case is now pending in the Court of Common Pleas of Cape May County. The charge to which he pleaded guilty on July 16 was a second offence.

September 5, 1929, Lewis Hoffman, of Pleasantville, pleaded guilty to practicing medicine without a license.

September 11, 1929, August Ohlendorf, of Jersey City, pleaded guilty to a charge of practicing medicine without a license. He refused to pay the penalty and was committed to jail for 5 days.

September 16, 1929, Norman Heiman, an unlicensd chiropractor, of New Brunswick, was committed to jail for 5 days. He had been previously found guilty of practicing medicine without a license.

September 18, 1929, Joseph F. Iuliani, M.D., of Newark, pleaded guilty to a charge of practicing medicine without a license and paid the penalty.

September 30, 1929, Arnold C. Stanford, a druggist, of Carlstadt, pleaded guilty to practicing medicine without a licensc and paid the penalty.

October 19, 1929, Don D. Modica, of Atlantic City, pleaded guilty to practicing medicine without a license and paid the penalty.

October 22, 1929, four cases were tried in the Englewood District Court. Louis Simons, a druggist, of Lyndhurst, was found guilty of practicing medicine without a license and paid the penalty. John J. DeCock, an herbalist, of Rutherford, was found guilty of practicing medicine without a license and paid the penalty. Luisa Bocchio, who specialized in the treatment of cancer, pleaded guilty to practicing without a license after hearing the first witness testify, and paid the penalty. Emile Carpentier, of Hillsdale, "The discoverer of the only cure in the world for T. B. cases," according to his own statement, was found guilty of practicing medicine without a license and paid the penalty. His attorney filed notice of an appeal to the Supreme Court.

October 30, 1929, Leslie Paxon, owner of a drug store in Beach Haven, pleaded guilty to practicing medicine without a license and paid the penalty. On the same day, Caroline Bateman, a physiotherapist who was practicing in Beach Haven during the summer, also pleaded guilty to practicing medicine without a license and paid the penalty.

November 6, 1929, Ehrgott W. Gebhardt, a druggist, of Merchantville, pleaded guilty to practicing medicine without a license and paid the penalty.

November 12, 1929, Robert Simpson, a licensed osteopath, of Newark, was found guilty of practicing medicine without a license and paid the penalty.

SPECIAL FINANCIAL REPORT

Committee on Program and Arrangements

(Letter to the Treasurer which, at his request, is published).

October 15, 1929.

Dr. Elias J. Marsh, Treasurer,
Medical Society of New Jersey,
Paterson, New Jersey.

My dear Dr. Marsh:

We beg to submit herewith the financial report of our Committee on Program and Arrangements covering the 1929 Annual Meeting.

While it is not very flattering, regarding any cash balance remaining, we were at least able to pay all the expenses incident to the meeting that properly belong to our committee.

We worked under a great handicap this year. In the first place, we had to publish our own program, which entailed a lot of work; secondly, we endeavored to adhere strictly to A.M.A. standards in both program advertising and exhibits and this necessitated our refusing a number of prospective advertisers and exhibitors; and thirdly, we were handicapped for adequate exhibit space for the exhibitors we had, due to rebuilding that was in progress at Haddon Hall, and as exhibit space is sold on a square foot basis,

we received less from the exhibitors, with 2 or 3 exceptions, than we ordinarily would have gotten.

In spite of the above conditions, we did not curtail the entertainment features in any way and we feel from the assurances received that the members and ladies who attended enjoyed the meeting, and we can look upon it as a very successful one from every standpoint.

The delay in making this report was due to the fact that 2 of the program advertisers were a "bit slow" in paying and we could not make a complete report until all accounts receivable were in hand.

Trusting that this report will meet with your approval, and with kind personal regards, I remain,

Cordially yours,
W. D. Olmstead,
Secretary.

MEDICAL SOCIETY OF NEW JERSEY

Committee on Program and Arrangements

Atlantic City, N. J.,
October 10, 1929.

Itemized list of expenditures of Committee on Program and Arrangements, from July 1, 1928, to June 30, 1929, covering the Annual Meeting June 12 to 15, 1929:

Stenographer (as needed)	$ 87.50
Traveling expenses to Newark, New York and Phila. (re:exhibitors and program advertising)	74.25
Haddon Hall, for constructing exhibit booths and incidental expenses pertaining to exhibits	192.50
Moving picture operator—7 sessions	35.00
Watchman—exhibit hall—4 nights	20.00
Luzenberg Vaudeville Agency (entertainment 6/14)	65.00
Orchestra for dancing—6/14	85.00
Prizes for dance 6/14	10.00
Colton Manor—ladies card party, afternoon 6/14	82.50
Prizes for ladies card party—6/14—and night card party	45.00
Shill Rolling Chair Company	155.00
Tips—Haddon Hall & Colton Manor	16.50
Amusement Publishing Co. for printing programs	455.43
Postage for returning cuts to advertisers	2.10
Electro plates	12.58
Jos. Budin—printing program card for Musicale 6/13	14.50
Jos. Budin—printing rolling chair tickets	3.75
Jos. Budin—printing advertising contract blanks	2.50
Frank Imhoff—signs	6.50
Commission to H. W. Fehling, Jr., for securing program ads.	237.50
TOTAL	$1603.11

MEDICAL SOCIETY OF NEW JERSEY

Committee on Program and Arrangements

Atlantic City, N. J.,
October 10th, 1929.

Report of receipts and expenditures from August 1, 1928, to July 30, 1929 (covering the Annual Meeting, June 12 to 15, inclusive, 1929).

RECEIPTS:

Received from Exhibitors	$875.00	
Rec'd from Program Advertisers	950.00	
		$1825.00

EXPENDITURES:

(See itemized list attached)	$1603.11
	$ 221.89
Less 20% to Secretary of Committee (this figure represents 20% of income from exhibitors and 20% of net income from program)	$ 223.89

OUR GROUP HEALTH & ACCIDENT AND AUTOMOBILE INSURANCE

(A letter from the Insurance Committee)

Members of our state society are reminded of their privileges in group insurance, the great importance of their security against accident and illness, and, just now, the new requirements on automobile insurance.

The Health and Accident policy of the Commonwealth Casualty Company of Philadelphia is one especially negotiated by us for our doctors. Note some of its features:

The Principal Sum is $5000 for loss by accident of life, or both hands, or feet, or eyes; $2500 for loss of one hand or foot; $1500 for loss of one eye.

For total disability from accident or illness $50 weekly for 52 weeks; for partial disability from accident $25 weekly for 26 weeks; from illness $25 weekly for 4 weeks.

All the above indemnities are doubled for "travel" accident; i. e., principal sum $10,000 and weekly sums $100 for total and $50 for partial disability. Travel accident is agreed to include any "public vehicle licensed for regular transportation of passengers, including passenger elevators (not airplanes)."

Claims are paid within 30 days.

Notice of accident must be given within 20 days; of illness in 10 days; of death immediately.

No medical examination is required.

All members of the state society, of whatever age, in good standing and repute are eligible.

The policy is non-cancelable for the policy year, when paid for. It is renewable if the company's experience on the group is not unfavorable.

Any change in rates or terms and any "acceptance or rejection or renewal of membership will be referred to the society" (not arbitrarily determined by the company).

The benefits under the policy are not contingent upon, nor affected by, any other insurance carried by the holder.

Not covered are: the first 7 days of disability from either accident or illness; venereal disease not innocently acquired in the practice of medicine; operations for chronic or preëxistent ailments; racing; aviation; injuries intentionally self-inflicted; nor intentional self-poisoning.

The annual premium is $60 for ages up to 50 (next birthday); $70 for ages 51-60; $85 for ages over 60. The attained age, on entry or renewal, determines the premium.

The premium must have been actually paid for the policy to be in force.

The company is the oldest casualty company in Philadelphia. The experience we have in their settlement of claims, now the second year, has been prompt, fair, and considerate, without resort to technicalities. We do urge members to read their policy and know just what it covers.

Advantages of this group policy over those individually taken have been frequently manifested in this committee's service to the members, not only in the broad range of contingencies covered and low rates of premium but also in members having a helpful negotiating medium sometimes in adjustments.

The Trustees of the State Society, through a special committee which has included 4 of the recent presidents, Drs. Donohoe, Mulford, Wilson and Green, have investigated the contract and its reliability and announced *"we have no hesitancy in recommending it very highly to our entire membership"*.

Cards of application for necessary data are supplied for the asking by either this committee or direct from the company.

Note that the policy once paid for is perfectly secure under all circumstances to the next renewal date; also that receipt, or paid check, from either the company or its agent is perfect protection.

Automobile Policies. Liability and Property Damage are insured by the Manufacturers' Casualty Insurance Company of Philadelphia under a standard policy at a discount to our members of 15% plus a dividend of 15% at the end of the year.

The new law on "financial responsibility" of drivers is very important and, though not "compulsory insurance", covers so many requirements in equipment and operation that the only assurance of avoiding delay and annoyance in securing the year's license is to carry insurance. We have a concise little pamphlet giving a digest of this law which will be given to enquirers by this Committee or the agents, Way-Conklin Agency, Inc. 605 Broad Street, Newark, N. J. (Room 705, Telephone Mitchell 0613).

The policy on "Fire and Theft, Collision and Transportation" is a new one just negotiated with the Manufacturers Fire Insurance Company—collateral with the above Company on Liability and under the same management and agency. It is a "valued" form, which means one naming the value of the car insured and which holds without reduction throughout the year; therefore, insuring for a definite and unchanged amount. The premium is at a discount to our members of 20% from the standard tables. We think this is a decided improvement over the one we have had, in coverage and, furthermore, will enable all automobile insurance to be issued under one "cover" by one agent, the Way-Conklin Agency, Inc.

The New Jersey Commissioner of Banking and Insurance approves the authority and stability of all the companies; this Committee has scrutinized the policies; the Trustees' Committee approve of all and add their recommendation, the present change in the Fire and Theft policy and change of Agency by the Company having been considered in a meeting on November 22.

The Commitee on Health, Accident, and Automobile Insurance,

Frank W. Pinneo, Chairman.

Lay Mirror Reflections

POSTGRADUATE STUDY IN FRANCE AND ENGLAND

(The newspaper items reproduced below are of interest because they show a tendency, at least, on the part of Paris and London medical institutions to cater to American medical students. In both cities there are excellent hospitals with large clinics and every facility for postgraduate study, but heretofore such opportunities have not been made easily available. In some specialties American physicians can find far better conditions for study in London or Paris than in the German cities. The main difficulty has been that existing facilities have often not been organized for teaching purposes. We hope these announcements give augury of a new era.—Ed.)

Wanted in France: American Medical Students

Americans and Frenchmen should become better acquainted. So thinks Albert Milhaud; and writing in L'Ere Nouvelle (Paris), he suggests that some of the American students now taking medical courses in other European capitals might be inveigled to Paris. To this end he commends the courses in the English language now being offered in some Paris medical schools. This gesture of amity, he believes, will be a step toward international understanding.

"In the United States there are many English, and English is the official language; there are many Germans, and the German-Americans play an extremely important part. There are many Italians and Slavs. We find few Frenchmen. Historic memories are no defense. The picture of Lafayette in the House of Representatives recalls a glorious page of the War of Independence. But we are losing our time. 'Lafayette, I am here! Lafayette you are there! Lafayette, we are all here!' The wheel turns. People are living in the present.

All the realists—and especially the realizers—who deplore this state of things are looking for remedies. We are not surprised that the medical fraternity has some to offer.

For my part, I think that their first suggestion is good.

It is to invite and retain in contact with our medical profession in Paris American physicians who are now flocking in great number to complete their medical education in the capitals where preparations have been made to receive them—Berlin, Vienna, Rome, Prague, Budapest.

Paris views all this not without emotion, and now just as the courses of higher education are being resumed, a piece of good news comes to us—eminent professors of the Faculty of Medicine are giving instruction in the English language, especially designed for students who speak that tongue. I congratulate those who are offering these courses."

Mr. Milhaud next refers to an article in a technical review, the Journal d'Optique, over the signature of Dr. Sabatier, devoted particularly to a course in ophthalmology, in English. The author of this "remarkable article", as he terms it, has thought well to quote the letter of a Canadian physician, Dr. J. E. Dubé, which Mr. Milhaud

thinks that his readers also should see. It runs thus:

"'Paris must do as much as Vienna for English-speaking physicians if the French wish to extend to the United States the benefits of the science of Pasteur and his successors. I believe that a great hospital in Paris should be attended by English-speaking students, physicians or not, and that physicians, surgeons, specialists, laboratory workers, and all working scientists should talk English in order to facilitate the work of these foreign students. This is only what is done in Vienna. It is good politics, and I hope that the Paris Faculty of Medicine will adopt it, for thus, in one stroke, it will have found the means of reaching the brains of American physicians. Now the distance from the brain to the heart is easily spanned. If you could recall the letters that I have received from American physicians, you would see how anxious they are to go to Paris for study, and you would understand that the language difficulty alone has hitherto prevented.'"

NEW HOSPITAL REGIME

(London Daily Mail, October 2, 1929.)

"The probability that the enormous resources of the Poor Law hospitals, which are being handed over to the county councils, will be developed for medical teaching and research was the most important point in the address at the opening of the new session of the Westminster Hospital Medical School yesterday.

It was delivered by Dr. F. N. Kay Menzies, medical officer of health, London County Council, who said:

Six months from today will come into full operation the Local Government Act, 1929—one of the greatest and most revolutionary advances in public health and social administration in this country for over 100 years.

The Act transfers to the L.C.C. the whole of the medical services of the Poor Law Guardians of London and the powers and duties of the Metropolitan Asylums Board.

That means transferring to the L.C.C. over 100 public hospitals and institutions, containing about 50,000 beds. As the L.C.C. already provides over 20,000 beds for mental and other cases, it will have under its control 75,000 beds dealing with every variety of disease. That is about 5 times as many hospital beds under one public authority as there are today in all the voluntary hospitals in london.

I cannot give details of the L.C.C.'s intentions until they have been finally approved, but there is a wonderful field for teaching and post-graduate work in what are now the Poor Law hospitals."

CRIME AND DEFECTIVE INTELLIGENCE

(From Literary Digest, August 24, 1929.)

Diverse opinions and conflicting evidence on this question, which can not yet be regarded as definitely decided, one way or the other, are presented in an article, prepared for Science Service (Washington), entitled, "How Mental Defects Add to Crime". The author, beginning with the question, "For how much crime are the mentally defective or mentally diseased responsible?" answers it by saying that there is a great diversity of opinion and a great scarcity of demonstrated fact. He then quotes a very recent expression on the subject from a leading editorial in The Mental Hygiene Bulletin, published by the National Committee for Mental Higiene. This runs as follows:

"It is estimated that about 2 per cent. of the general population are mentally defective. That is, about one-fiftieth are more or less lacking in brains. But this one-fiftieth produces one-fourth or one-third of the prison population; so that, as a matter of fact, many more criminals are drawn from the mentally defective classes, in proportion to their percentage of the general population, than from the rest, even though they actually represent only a fraction of the prison group. . . . The mentally defective are potentially greater risks because of their mental handicaps than the more intellectual groups, and they need protection, training of a special sort, and supervision to steer them into blameless living."

Dr. Carl Murchison, of Clark University, after giving the Army Alpha intelligence test to a large number of prisoners in the state prisons of five states, voiced the opinion that mental defects have less to do with crime than is generally supposed. Says the writer:

"He found that the white men among the prisoners were, in fact, superior in intelligence to the drafted soldiers in the World War. And he reasons that the more intelligent among the criminals are probably those not in prison. He found, however, that the women prisoners were inferior to the men in mentality; and the Negroes were far below the whites. In this connection it is well to remember that the Negroes make up about one-third of the prisoners in all our institutions.

The Children's Bureau of the U. S. Department of Labor, in a survey of the mentally defective in one county, found that large proportions of those of doubtful or deficient mentality are delinquent, and that the majority were at large in the community. They found one-fourth those of questionable mentality were delinquent, immoral, or uncontrollable, and of these about eight-ninths were at large in the community at the time of the survey. Of the positive cases of feeble-mindedness at large in the community, 35 per cent. were reported delinquent, degenerate, or uncontrollable.

Dr. William Healy, in a careful study of delinquent and problem children for the Judge Baker Foundation, discovered that 72.5 per cent. were of normal mentality, the others being feeble-minded, subnormal, insane, or psychopathic. In Chicago, the proportion of the abnormal was higher. There it reached 37 per cent. He also found that the abnormal were more likely to remain criminalistic despite special training and care after the delinquency. He says:

'The causes for failure as well as for success are undoubtedly complex in every case, but it is striking to find that in 52 per cent. of the failures diagnoses had earlier been made of abnormal mentality or personality.'

From the normal group he reports 180 successess to 65 failures, while from the others there were only 60 successes to 81 failures. The group showing psychoses or psychopathic personalities contained only 11 successes to 28 failures.

Dr. Bernard Glueck, when he was director of the Psychiatric Clinic at Sing Sing Prison, made the following analysis of the prison population there. He found that 59 per cent. showed some form of nervous or mental abnormality. Of the sexual offender, considered as being the most serious menace to society, 70 per cent. were mentally pathologic.

The proportion who were repeaters was particularly high among the abnormal. Of the mentally defective, 80 per cent. were repeaters, of the insane 63 per cent. were old offenders, and of the psychopathic 87 per cent. had been in prison before.

Dr. Glueck also found that the extent of psychopathologically classifiable cases is in direct ratio to the seriousness of the offense. Of the criminals guilty of acquisitive crimes, such as burglary, 57 per cent. were abnormal, those guilty of crimes of pugnacity were 59 per cent. abnormal, and of those guilty of sex offenses 70 per cent. were not normal mentally."

SERVANTS OF HEALTH

(An Editorial from the New York Times, October 10, 1929)

Ten thousand private physicians of Greater New York are uniting for an intensive campaign to educate the public to keep its health. They are living proof of the statement made some years ago by Dr. Harvey Cushing: "It has been a seeming paradox that the medical profession has so consistently endeavored to make of the world a place where there is a constantly lessening need for the medical man." Doctors still find plenty of disease to give them battle, but the world and the doctors with it are feeling the effects of their efforts. Standards of public health are raised each year as one by one the ailments of suffering mankind are conquered. Physicians are proud to become servants of public health rather than prescribers for individual ills.

The 5 County Medical Societies of Greater New York are creating a precedent with their drive. Such campaigns have heretofore been conducted by government or institutional bodies. The doctors are going to let people know, through the radio, the press and moving pictures, that they regard themselves as guardians against disease. They want people to realize the importance of preventive measures in maintaining health.

A new relationship between doctors and patients is emphasized by the societies' action. Dr. Galdston has pointed out that advertising and publicity for physicians are to be approved in this form. They are not individually announcing their readiness to cure the ills of prospective patients, for that sort of advertising is still against professional ethics. The whole body of physicians advertises not for purposes of increasing personal wealth or reputation but in the interest of public health. That is their motive in urging regular health examinations. They hope not only to check incipient disease but also to teach the value of proper living in promoting better health. They want people to acquire the habit of frequent consultation when they are well, so that they may keep well.

November is a good month for such a campaign. Every effort will be made to persuade people to get themselves in good shape for the winter before bitter weather sets in. Just now sudden changes of temperature, rainy weather, the experimental heating of homes and the unexpected arrival of balmy days after sharp frost are hard on the human frame. Colds are common at this time of year. The public is in a receptive mood toward information on how to get well and keep well. Each one will wish the doctors success in their new work as wardens of health.

In Lighter Vein

Sirens

A couple of young ladies who were visiting a Western city decided that they would go horseback riding, we are told, and the head groom asked one of them whether she would prefer the flat English saddle or the Western saddle with a horn. "The flat saddle," said the young thing, "because we aren't going to ride in any traffic and won't need a horn."—New Yorker.

Last Long Drive

Golfer—"Hi, caddie! Isn't Major Pepper out of that bunker yet? How many strokes has he had?"

Caddie—"Seventeen ordinary, sir, and one apoplectic!—Passing Show.

Double Diagnosis

"How's your car running?"

"Not so good. I can't keep it throttled down."

"How's your wife?"

"Oh, she's about the same."—Pathfinder.

Odd Facts

America is the land of the free, and the rest down in easy payments.

Too often the call of the open road is "Say, where the hell do you think you're going?"—Judge.

No Overhead

Fizz—"They have no piano, no summer home, no fur coats, no victrola, no washing-machine, no automobiles, no radio——"

Fuzz—"Gee, they must have money."—Life.

Atchoo!

One length of nose can be made to do the work of three or more by inserting special spraying nozles at intervals. These distribute a fine mist in all directions.—Toronto Daily Star.

The doctor's little daughter had strayed into his surgery, and was watching, wide-eyed, as he tested the heart and lungs of a patient. Suddenly she spoke:

"Getting any new station, daddy?"—Kalends.

Babies in Newark, U. S. A., wear bibs inscribed "I don't want to be ill. Do Not Kiss Me." There are faces like that in this country, too.—The Passing Show (London).

What puzzles us about the dinosaur, after following the dispatches for a time, is the trait of leaving its thigh-bones in Arizona and its eggs in Mongolia.—Detroit News.

This will go down as a great year for the explorers: Byrd found thousands of miles of new country, and a vitamin was located in hash.—Detroit News.

Current Events

CONFERENCE OF SECRETARIES AND REPORTERS OF COMPONENT COUNTY MEDICAL SOCIETIES OF NEW JERSEY

Trenton, New Jersey,
November 6, 1929.

A conference of the Secretaries and Reporters of the County Medical Societies of New Jersey was held at the Stacy-Trent Hotel, Trenton, November 6, 1929, being called to order at 11.30 a. m., by the President of this group, Dr. George H. Lathrope, of Morris County.

The following members were present:

Atlantic County—John Irvin
Bergen County—S. T. Snedecor
Burlington County—George T. Tracy and R. I. Downs
Camden County—B. Franklin Buzby
Cumberland County—E. C. Lyon and E. S. Corson
Essex County—Frank W. Pinneo
Gloucester County—H. B. Diverty
Mercer County—A. D. Hutchinson
Morris County—George H. Lathrope
Ocean County—Alfred Woodhouse and George W. Lawrence
Passaic County—Frank Ash
Somerset County—Benjamin Borow
Sussex County—F. P. Wilbur and Frederick H. Morrison
Warren County—L. C. Osmun

Dr. William H. Ross, President-Elect of the New York State Medical Society, was present as Guest Speaker, and Drs. George N. J. Sommer, John B. Morrison and Henry O. Reik were present as officers of the New Jersey State Medical Society.

Dr. Lathrope: This is the fifth gathering of Secretaries and Reporters of our county societies. The movement was first instituted in 1926 by Dr. Donohoe, when he was President of the State Society; a meeting was held in 1927, with Dr. Green entertaining; one in 1928, under the presidency of Dr. Conaway; and this year we are having 2 meetings—having had one in February, 1929, and this second one because it seemed wise to change the time of meeting from the midwinter season, with its attendant bad weather, to the autumn. Another idea was that meeting at this time of year would give us a better chance to put through in the county societies any plans which might be determined here.

The Secretary will please read the minutes of our last meeting.

The Secretary, Dr. Hutchinson, read the minutes of the previous meeting which he said had been taken verbatim through the kindness of the Executive Secretary. (See Journal, March, 1929, page 248). Upon motion, duly seconded and carried, the minutes stood approved as read.

Dr. Lathrope: I think we should understand something of the purposes and powers of this conference. I take it that the purpose of a conference of any sort is primarily to confer together, to have an exchange of ideas. With the exchange of ideas should come development of plans, and out of the development of plans should come perhaps some action. Now, action that will come from anything that we will do here will be more or less remote. It is what we will be able to take back to our county societies that will count; or what we may see fit to propose direct to the state society, for we have the privilege of making whatever recommendations we want. As to power, our power is nil except such as may be intramural, right within our own bailiwick here at the meetings. But I feel that the influence of such an organization as this may become very great. If we can bring our problems here and work them out together it will be very beneficial. I think last year's discussion showed that our individual problems were very much in common, at least a great many of them. Some of them, of course, were peculiar to certain locations.

It is with a great deal of pleasure that I introduce the First Vice-President of the Medical Society of New Jersey to make the opening speech—Dr. George N. J. Sommer, of Trenton.

Dr. George N. J. Sommer: When Dr Lathrope spoke to me a few minutes ago and said my Chief, Dr. McBride, would not be here today and I was expected to make the address of welcome, I was very much at loss to decide what the tenor of that speech should be. Of course, I am greatly pleased as a Trentonian to welcome you, at least to see the relics of our Two Hundred and Fiftieth Anniversary which took place last week. Furthermore, as an officer of the state society, I am naturally glad to welcome you to Trenton inasmuch as your deliberations are to consider and try to solve some of the problems which confront the profession in its daily work. I know that in your hands, with the influence you wield back home, these problems will at some time or other come to a satisfactory conclusion. But I came here to listen and to learn and I trust that I shall be able to gain something from your deliberations which may help me, as well as the profession in the county of Mercer.

Dr. Lathrope: About 5 years ago, the officers of the state societies of New York, Pennsylvania and New Jersey got together for a conference and formed what is now known as the Tristate Medical Conference, and they have been meeting 3 times a year ever since. That conference has also been of some value to New York and Pennsylvania. We have today a member of that conference with us, an officer of the New York State Medical Society, the President-Elect, and I feel that we are very fortunate in being able to hear him. I take great pleasure in introducing Dr. William H. Ross, of Brentwood, Long Island. His subject will be "Professional Problems Arising from Progress in Scientific Medicine".

Professional Problems and Medical Progress

William H. Ross, M.D.,

President-Elect of the Medical Society of New York State

Brentwood, Long Island, N. Y.

It is a pleasure to come to you and to help divide the burdens of my friend, Dr. Vander Veer, President of the New York State Medical Society, who has a very big task on his hands. I hope that I can bring to you something from the activities of organized medicine in my state that you can make use of in considering your own professional problems and the professional problems that are now common to practically the whole country.

It is a striking fact that medicine has come to have a public character in recent years. While many medical men in our county societies seem not to have noticed this, everyone who has kept in reasonably close touch with medical thought and medical leadership, whether he is a profess-

ional man or layman, recognizes it. When we hear Governors of states and the President of the United States stimulating health and welfare organizations to greater activity, the profession cannot help but recognize a new tendency. It makes little difference at all as to how it came about, the fact is that there is a new era confronting the medical profession. The health needs of a changing world, with its present fundamental knowledge of preventive medicine and its desire to have as much health and for as long a time as it may is arousing the active interest of a portion of the medical profession. There are many indications in organized medicine of a new conception of greater public obligation than just the practice of curative medicine. Progress in scientific medicine, and public knowledge thereof, has created new problems and has shown the need of a different relationship than we have heretofore had to health, social, and welfare agencies, and also to the health activities of industry, the various kinds of insurance, and certain activities of the "State" itself in giving therapeutic aid.

It is somewhat less than a generation ago that the causes of yellow fever, typhus fever, and bubonic plague were found. We talk today of the dangers of impure milk and contaminated water, almost forgetting that we have not always known of them. Insulin, different kinds of vaccination, and antitoxin only further illustrate the great changes in medicine. We cannot tell why such a rapid change came but we can see the problems that it creates and the need for as prompt a solution as possible because of the law of acceleration that once a change has come it goes on faster and faster. Until we commence to adjust ourselves to a new relationship, in order to meet the public demand for health and preventive medicine, we are in danger of having a declining influence with the public. When we think of the progress in scientific medicine during the last few years, commanding as it has public respect and considerable publicity in the press, we cannot wonder very much that problems of distribution of health service have arisen and that many different health agencies have undertaken to improve the health situation.

A third factor is the doctor himself and while he has accepted a definite obligation to society, it has previously been of necessity mainly in the field of curative medicine; largely because the doctor had to earn his living by healing the sick, and partly because society has not until recently asked for anything else. Now, there is a new situation resulting from more medical knowledge, the public character that disease prevention has taken on, and the public demand for health service.

While doctors in general always react to professional ideals of service and are usually honorable, unselfish and willing to do anything to advance the standards of practice and make service available to everyone, including public health and the prevention of disease, the traditions of medicine, the obligation of conservatism, and the absence of a program or plan for mass service in preventive medicine have made them slow to take their coöperative part in the present day public demand for health and preventive medicine; in addition to the influence of a doctor's major occupation still being the practice of curative medicine. From these 3 factors—the public, the several kinds of health organizations seeking to give service, and the doctor—each looking at the situation, of necessity, from a different viewpoint, have arisen all the perplexing problems that almost everybody interested in health and welfare work is trying to solve. Among other comforting tendencies that did not exist even a short time ago is the fact that the medical profession is showing indication of departure from tradition and a willingness to adjust its conception of ethics enough to coöperate with lay tendencies and to coördinate activities with them in a disease prevention program. There is now less tendency to find fault with other health organizations. No longer is controversial discussion even interesting. It makes no difference, here again, how this came about. For some time we have thought that we were in an evolutionary period of preventive medicine planning, but current news items regarding professional activity in preventive medicine come nearer to placing us in a revolutionary period.

Within the last month there have appeared in the public press many items on public activities of medical societies. Let me refer to just a few. The President of the University of Wisconsin said that the medical profession must teach the public a health program, or, insurance companies, industrials, or the state itself, might be compelled to do so. The Chicago Medical Society is starting an educational health program in that city. The well organized diphtheria prevention and cancer control programs of Nassau County, Long Island, are advancing. The public health work of the Kings County Medical Society, in Brooklyn, and its ideals of relationship with health organizations and industry, reflect an early and clear vision of present tendencies toward health maintenance. The health educational advertising program of your Bergen County Medical Society, to which the doctors have added their names in the advertisement, is an innovation and one of the first bold steps of a society of ethical doctors to tell the public over their own names what can be had in disease prevention. The physicians of the 5 counties of New York City are coöperating with the Health Commissioner in a newspaper campaign of public health education in order to carry a message of disease prevention to the public, and are doing more preventive work than ever before. More and more frequently articles are appearing in medical journals on "The Physician's Obligation" and like subjects. There is a rumor that the physicians of Chicago are considering building and operating hospitals so as to lower the cost of medical service. In the New York Tribune of November 4 there is a news item concerning the new Gotham Hospital and its plan to insure medical treatment within reach of those with only moderate incomes. These are interesting items at a time when "the medical profession is discussing the necessity of evolving a plan for making health more available to the majority of people". I have attended all of the District Branch Medical Society meetings in my state this year and some county society meetings. I have seen generally a new interest in preventive medicine and in public health. It seems a fair conclusion that all these indications are simply the forerunners of what organized medicine will soon be doing everywhere. All these things are examples of a new tendency in organized medicine acting on its own initiative to assume its obligation to give the public a health service program. In general, it is a new activity of the medical profession.

What we have had in public health organizations hitherto has largely come from official health agencies like a state department of health or a voluntary lay agency alone or in coöperation with some wealthy "foundation". There has not been a general coöperation of the medical profession in

the sense of using its leadership, and there are many reasons why. It is not necessary to discuss the doctor's conservatism in contrast with the layman's emotionalism, nor the fact that the doctor sees an economic disturbance and a disturbance of public social morale when people are given without price that which they are able to buy. Happily these things are also being seen by public health teachers and health organizations. The profession recognizes that upon health agencies rests the burden of distribution and that the profession has not the organization to handle the mass problems of preventive medicine. Public health and disease prevention must remain the burdens of the health department. The profession can, however, organize itself to coöperate with other health organizations. If we do not do these things, the government in time will do them. The state can solve these problems of the prevention of disease if it wishes. If the state undertakes to provide for the health of its future citizens, it will have no difficulty in doing so. If the medical profession does not meet the situation by organizing itself to do health work, the state is likely to do it and we will have more "state medicine". Upon us will then rest the responsibility for the arising economic disturbance. We all recognize that the state could not long exist without the health of its people and that the state is within its rights in doing these things if they are not otherwise done. If we organize ourselves and offer to help, we will be in a very different position than if we fail to make a constructive effort to do our share in meeting these problems. Unless we work at these things constantly, the medical profession will be in danger of a diminishing influence in health matters. The problems of public health and prevention of disease are going to be solved by some group. There is behind this need for service a great force, that of public opinion, of public demand, and some indications of public impatience.

What is the best method of solving most of our professional problems? In the New York State Medical Society we have a *Public Relations Committee* with a personnel of physicians who have seen organized medicine from the inside and who know from experience the administration of public health. We also have in each county society a local public relations committee. The state committee is a very active one. Its purpose is to seek to establish a coöperative relationship with any health agency, of any kind, having anything to do with the practice of curative or preventive medicine. It seeks also to aid the medical profession in organizing itself so as to give preventive medical service to groups when necessary—like school examinations, the correction of defects found in those unable to pay for treatment, and to apply preventive measures in a semi-mass way to school or pre-school children (or others on occasion). It also exists for the purpose of adjusting differences of opinion between organized medicine and other health or welfare organizations, and to constructively reform existing administrative methods of government in caring for those who cannot provide medical treatment for themselves or cannot provide it adequately, so that the general medical profession shall not be deprived of doing, in any local field, whatever professional work is required. This committee undertakes to do for medicine what is being generally undertaken in other relationships throughout the world today. There was a time when every medical man was his own public relations committee, but in these days individual relationship no longer answers because in its place combinations and large groups have to work with each other. The time has gone by when only individual relationship will answer, if the medical profession is going to meet its responsibility in public health and in preventive medicine. The medical profession cannot hold its place in public opinion and cannot avoid a declining influence except by adjusting its relationship to other health organizations on a coöperative basis.

The cost of medical service continues to grow and interference with private practice continues to be complained of, just as they have been for a long time, and no solution of those problems is yet in sight unless the present indication of the interest of organized medicine in the distribution of health service to the general public is the beginning of finding some way out of the difficulty. It seems true that the profession will have either an increasing or a diminishing influence exactly in proportion to the degree with which the County Medical Societies, as basic units of organization, regard their relationship to the 2 great functions of every health organization—public health and disease prevention. It seems plain that the medical profession must accept a definite relationship to these great functions. The public wants health and expects it of the profession, primarily, but will accept health service from other agencies if necessary.

It is these things that the Public Relations Committee of the State Society and the Public Relations Committees of the County Societies undertake to do by establishing a coöperative and coordinating relationship with health organizations. The Public Relations Committee of the New York State Medical Society might be called a clearing house for difficulties, with a vision of the kind of relationships that should exist regarding a public health and preventive medicine service. It affords a means of developing professional ideals as a source of better service to the public and a method of curing some of the problems of medicine. Other methods have been tried with indifferent results. Let this one be tried. It is a method based on good will. It works in other human activities and may constructively help to solve problems and difficulties regarding medical leadership and medical cooperation with health, social, or welfare agencies, and concerning insurance, contract practice, industrial welfare, old age insurance, and school medical administration. Our Public Relations Committee has already acquired from its brief experience vision, tact and diplomacy. It is trying to use its influence to effect a new understanding of medical relationship as a means of solving medical problems that have been growing worse for a long time and for which solutions have not yet been found. Perhaps this is idealism but if so it is producing results and it will become the greater force when combined with realism and understanding of fundamental conditions confronting the profession. If to this there can be added a foresight of where the present tendency in the public character of medicine and the public demand for help leads, we will be laying the foundation for better things. All leaders throughout history have been idealists.

It is time for us to wipe out misunderstandings with other health organizations or else take the consequence of a declining influence. There is a common ground upon which all organizations, without reservation, can coördinate their activities. There is a real urgency and need for such action if we would avoid the responsibility for delay in advancing preventive medicine. Organized medicine's largest task is to harmonize relationship

between the medical profession and all other official or unofficial social agencies so that the profession of medicine may keep its high place and increase its influence.

One other factor; in New York State we have a post-graduate study committee doing a very splendid piece of work in bringing to county medical societies such post-graduate instruction as will make their members better doctors. These 2 committees—Public Relations and Post-Graduate Education—are exercising a great influence upon medical problems in my state. In a real sense they are complements to each other. Out of the progress of medicine new conditions have arisen. The times have changed faster than the profession has changed. The methods of yesterday, with the health demands of today, will not suffice. It will not do to overlook a vision of where present social conditions and the change in public opinion leads.

Although the profession largely works as individuals, there is no reason why it should continue only the individual conception of healing in contrast to a conception of mass or semi-mass practice of preventive medicine for groups. Every medical man knows that poor health can be more largely forestalled than it is at present if we would make greater use of health examinations and systematize our office work so as to render mass preventive service at certain times. We must, anyway, adopt "prevention of disease" as a part of our work. for economic reasons if no other. The essential problems of medicine are simply the problems of progress, and the cure is to make ourselves better doctors by post-graduate study and by an adjustment of coöperative relationship to other health agencies and to the public health demands. While our professional problems seem many, they easily fall into 2 classes: the need for making better doctors through post-graduate study, and the need for better relations with outside medical agencies.

Discussion

Dr. Lathrope: I am sure we have been very fortunate in selection of the speaker who could bring to us not only such a clear and comprehensive statement of one of the big problems confronting medicine, and confronting the rank and file of the profession in the county societies, but also who does not confine himself to destructive criticism but offers a constructive solution of the problem. I am sure that some of us will want to discuss the paper and ask questions.

Dr. E. S. Corson (Cumberland County): This is certainly a very interesting paper. The thing that suggests itself to my mind immediately, when we are shown all this work to be done, is the question of money. One thing that impressed me was the remark about the amount of time which the state society president has to take from his practice. and consequently the diminishing of his bank account, because of his incumbency in that office. The next thought that came to my mind was that it is high time our own state society had a Foundation Fund, which might be added to by bequests from members of the society or other persons interested in the work, to assist the president in his efforts to promote the work of the society during his term of office.

We all realize the benefits which have come to us in New Jersey through the employment of a paid secretary, one who has been able to tie up the various activities of the state society. Personally speaking, the work of my office has been increased and yet I have seen great improvement in myself. I have derived much inspiration from our Executive Secretary in the feeling that my efforts were appreciated and that my suggestions would be enlarged upon when they reached his office, that they would be capitalized and made use of for the benefit of others. Now it has cost our society considerable money and we have had to increase our dues. While some of the members objected to the increase, this has been temporarily overcome, but it is evident that if the work is to be expanded further the time has come, I think, for us to have a Foundation Fund under the auspices of the State Medical Society, to which any of the laity might contribute or to which the medical practitioners, those who have been members of the society, might contribute, so that the president could have a salary attached to his office, or at least have all of his expenses met during his term of office which could enable him to carry on the work without personal loss. Every one of us is deriving an immense amount of benefit from the labors of these state society presidents.

Referring back to my experience with the state society, I remember that some years ago all that was demanded of its president was to write a thesis and present it at the annual meeting, and perhaps attend a few committee meetings. But with all the work that falls upon the State Society President today a great deal of expense is entailed and this should, I think, be met by the state society. We cannot expect the organization to function unless at least the expenses are paid. We all know the great amount of travel required and how much personal loss it must entail; President Mulford devoted almost all of his time to the work of the society during his incumbency, and a Foundation Fund is geatly needed to reimburse the president and other officers of the society so that they can act as a liaison between these various organizations referred to in Dr. Ross' paper. If we had a half million dollar foundation which could be appropriated to the ends which we are discussing, see what a wonderful thing it would be. I have been delighted to observe the benefits that have accrued to me personally from the work of the state society Welfare Committee. Take the work of that board in its relation to the Workmen's Compensation Act alone; look over your books and see what has come in from "industrial cases" which if it had not been for the Welfare Committee we would not have had, and see whether we are returning to the state society a sufficient amount of appreciation. Consider the matter of insurance. Again, these men came to the rescue, to tide over an emergency which existed, and I think we should as medical men wake up to the fact that we must spend more individually to help along this movement which is amounting to so much financially to the medical profession, for without their efforts many of us would find that our incomes would be considerably depleted.

Dr. S. T. Snedecor (Bergen County): Dr. Hutchinson wrote and asked me if I would say a few words about the results of our publicity campaign.

First of all, I want to pay homage to Dr. Ross, a gentleman whom I have known for a long time and a gentleman whom I respect as one of the greatest leaders in the profession today; a man who has made a financial success in the management of a sanatorium which has been conducted with honor to the profession; who is directing the county tuberculosis work; who has just organized a county board of health; who, when the South Side Hospital got in difficulties some years ago, reorganized it; who has been President of the Long Island Chamber of Commerce, a job for a

great man; and who is going to be President of the New York State Medical Society next year. Dr. Ross has given us a real message this morning and I want to say that I appreciate it very much. We are having him address our Bergen County Society next week, I am happy to say.

Regarding the publicity campaign in Bergen County started a year ago, perhaps the advertising is the part of it that is best known but I would not have you think that the advertising overbalances the other activities of the county medical society. One of the things I started the first year that I was secretary was a monthly "Bulletin" giving the programs of meetings and telling in detail of our activities so that each man in the society would know what was going on, what meetings were being held, what correspondence taking place, and what the state society was doing for us. It solves many problems. There are no long winded discussions of misunderstandings at the business meetings, and the members always come ready to push things because they know in advance what is going on. (Samples of Programs shown.)

We had to raise the dues this year for the state society, so we boosted that along with the county work. It cost us $5 to run our routine activities and the county society voted $25 dues so that we can have some money for the "Public Relations" work.

I thought you would be interested in this new advertisement of the group of county societies embraced in Greater New York City. Here is one, showing you what appeared today in the New York Times. The Life Extension Institute wrote their copy for health examinations and it has that flavor, but the society will broaden out and take up other activities.

As to the results of our advertising, I'm sure that the doctors have done twice as many health examinations this year as during the previous year. As for the rest of it, I think Dr. Ross' speech has shown us the need for this type of work, this sort of intangible need which you cannot measure.

We also had a "membership drive". We need to have everybody who is eligible become a member of the county society. We looked at the classified telephone directory and were astonished to find that not all of the doctors were listed as doctors; and found more than 100 names of men listed who had no license to practice medicine in New Jersey. We have revised a complete list, with the aid of the Board of Examiners, and the Telephone Company is coöperating with us and will hereafter publish a correct list of physicians in their classified directory; previously they had no way of telling who should be included in this list and were very glad to secure facts from us. Incidentally, we wrote to all of these men and as a result got applications from about 20 new members, because they now know that the county society is active.

Part of our work is, we believe, to identify the members of our county society, and we had certificates printed and sent to members of the society so that they could identify themselves by this and by use of a seal. We had small electrotypes made for sale to members for about $1 each, for use on their stationery; we use the seal on all medical correspondence and are trying in this way to identify the members with our county medical society.

A word about this year's program: We do not feel that anything we have done is of a set nature. Some of our advertisements were in the form of an experiment. We have a local radio station which has given us choice broadcasting hours, 12.30 noon on Sundays, for about 6 minutes; we do not want too long a time. The advertising is placed in 7 papers in the county. Broadcasting is really of a personal nature and I think the man's name should be used. I believe we are getting away from the old fashioned idea that we should not use a man's name in this connection. All the newspapers have consented to save space each week to print the radio talk. So we make of it a general publicity program. We are, in addition, having reprints made of those advertisements for distribution throughout the county. If you need money, here is one way to get it: The Tuberculosis League sent us $200 and offered to distribute reprints and assist in every possible way. We are organizing a speakers' bureau. We intend to keep on with our advertising in much the same form. This month we will join the New York campaign and advertise public health examinations. We keep a directory, from time to time listing the towns and the men eligible to practice, teaching the people who the local physicians are. The whole program is interesting and we feel that the results are very fruitful. It is in line with the message Dr. Ross has given us today and we welcome any other suggestions. This work is not at all complete, we are really just beginning it.

Dr. Frank W. Pinneo (Essex County): I move a vote of thanks to Dr. Ross for his delightful paper, so characteristic of the thing we need from such a leader, and so beautifully putting this ideal before the profession.

This motion was seconded and a rising vote of thanks extended to Dr. Ross.

Dr. John B. Morrison (Secretary State Medical Society): I feel amply repaid for coming here today to listen to Dr. Ross' address, and I trust it will appear in the State Society Journal and in the Journal of the American Medical Association. There is a crying need in the United States today for this sort of leadership. I believe that preventive medicine, with its effect upon general public health, is the next greatest advance in medicine since the introduction of aseptic surgery.

It is difficult for us who have been leaders in medical movements in the state to arouse the physicians to a sense of responsibility that they owe to this new proposition. We have leaned backward with conservatism for more than 100 years and it is difficult to make the average physician see that a doctor is no longer to confine his time to treatment of the sick and chronically ill, but that the public is demanding that he, as an educated doctor, as one of the leaders of the community, must devote time to preservation of the public health. We have done considerable in health education in New Jersey and we may point with pardonable pride to the fact that this started 6 years ago, when the motion was adopted in the House of Delegates to engage a Secretary for the Welfare Committee. The special committee that was empowered to select him exercised a great deal of care and thought, and those of us who saw the handwriting on the wall realized that the time had come when we must depart from political activities and spend our time in educating the public concerning medical standards and concerning the fact that the medical profession is interested in something more than cure, of the sick. Dr. Reik made addresses to the Kiwanis and Rotary Clubs, to lay organizations of various sorts and as Executive Secretary and Editor of the State Medical Journal, added to the other activities in which he has been so busily engaged, he in time found it impossible to do all the work outlined by himself.

The demands of the public were so great and requests for talks so numerous that we had to engage a Field Secretary, in the person of Mrs. Taneyhill, to carry on this message, and now her work has increased by leaps and bounds. The demands of the public for educational talks on public health, approved by the New Jersey State Medical Society have been so great that we are scarcely able to meet them. It is now planned that Mrs. Taneyhill shall this winter address every school child in the state of New Jersey on subjects relating to public health and preventive medicine. We can scarcely evaluate what it will mean to the state society to have inculcated in the minds of every child the importance of consulting the family physician in every line of deviation from health. Along with that work of the state society has also gone development of coöperation with the State Board of Health, the Department of Education, and the Commissioner of Institutions and Agencies. We were extremely fortunate in New Jersey in having Dr. McBride for so many years as Commissioner of Labor. The work that he has done in the adjustment of claims in compensation cases has been so great that at a meeting of the Tri-state Conference in Philadelphia several years ago it was said that the doctors in New Jersey were getting 100% more returns than were the doctors in Pennsylvania for similar work; and that was entirely due to the work of your Welfare Committee, and the Department of Labor, both headed by Dr. McBride.

Coöperation has come also from the Commission for Crippled Children. We did not accept kindly the first draft of that law and one of our chief criticisms was the fact that the Commission was given the power to take out of the hands of an ordinary physican any case of a deformed or crippled child that the Commission thought was not receiving proper treatment. We now think the law as passed is one of the greatest advances that was ever made. Doctors are now represented on that staff by those who will see that justice is done every time; but they think first of the welfare of the child, and if he is not receiving the most scientific, modern, up-to-date treatment, they feel that they have a right to advise the Commission to take him out of the hands of his physician.

This is just another attempt to remove some of the impatience that Dr. Ross speaks about on the part of the public as a criticism of the medical profession. There are many such criticisms and, as he says, 2 of the greatest remedies are acceptance of the idealism of which he speaks, and the introduction of better doctors. There was a time when a doctor could write a prescription and give advice, and his opinion, whatever it was, was accepted, but the public is better educated today; the people know what they want, and they also know that if not satisfied with any doctor, they have a perfect right to go to somebody else. So, it behooves us to elevate the standards of our own physicians as much as we can.

Apart from the line of this discussion, I want to speak of our own prospective post-graduate courses. We formed a committee 2 years ago to consider this problem and the members thought it not feasible at that time to carry on such work in New Jersey. We have been thinking it over ever since and this year have another committee at work on the problem in a new way. President Thomas, of Rutgers University, has offered to cooperate with us in our plans. The University will take care of the entire publicity at actual cost charge. The committee is vigorously at work on plans and will not offer you anything that is not of the highest value. It is not entirely settled as yet but we expect to soon ask you, as county societies, to take part in the program. For a time we discussed whether it would be advisable to use local talent only in the state. We have gotten away from that idea now. We are in touch with groups of men in New York who are university teachers in medicine, who have developed courses of lectures all over the state of New York, and who are willing to come over to New Jersey for a moderate charge and give you up-to-date instruction in modern medicine, medicine that is not yet within the textbooks, and with which you in the county societies have not been able to come in contact. Advanced ideas will be brought out in a thoroughly practical course of instruction, and we trust that when this does come out—the plan will be published soon after the first of January—it will be heartily received and appreciated. We hope we will be able to start a course of lectures in the early months of the spring. We will start with about 8 lectures to the course and we believe the cost will be cut down to about $25 for each member. I think the committee will prefer to deal with the county societies rather than having to deal with individual members, for there are some good features in that plan: If in the smaller county societies John Jones knows that John Smith of his county is taking that course of lectures he is much more likely to take it also than if John Smith were dealing individually with the committee.

Dr. Ross spoke of coöperation of the medical profession with social organizations. The social medical organizations, you know, are here to stay. A great many of them are led by teachers who have taken a university course in social work. They are actually giving up their lives to social welfare work. They are pioneers and know what they want and are going to get it. They have the power and influence and, what Dr. Ross did not tell you, they have almost unlimited funds. They really have the public welfare at heart and the medical profession can no longer hang back, as it has in the past, and withhold the assistance that these organizations are craving. You may say you haven't the time nor the money. I had neither the time nor money when I started in as secretary of your society, but I saw what was needed for the profession and that unless we woke up to a realization of the fact that we were in a changing aspect of medicine, that medicine would be so changed in the next 20 years that we would not recognize it; and that unless we tried to solve these problems through the medical profession we would have lots of time to sit around in our offices and with far less money to spend.

In my opinion, it is almost inevitable that state control of medicine is facing us. It will never be the kind that we see in England or in Germany or Austria. It will be in all probability either municipal or state. We are now taking care of the tuberculous, the insane and feebleminded; we are organizing clinics for treatment of a half dozen different diseases; great industries are interesting the state in the protection of the public; we are controlling our water and milk supplies and we are taxing ourselves for almost everything else in connection with public health except the direct care of the sick, and it seems to be but a short step between the system we now have and "state medicine" in some form to take care of that. Unless the medical profession, 100% strong, takes the schemes proposed by Dr. Ross to educate the people to an apprecation of what the profession is

doing, the advance we are hoping for will not be made.

I like Dr. Ross' reference to idealism. Your state society officers have been hammering that home to you for the past 5-6 years in an effort to arouse the physician from his irresponsibilty or indifference to a realization of what he owes to the medical profession and to the public. We cannot bring all this to you at once. We can only hope to sow the germs that will initiate in each of you the resolve to do all that you can toward the part that organized medicine must play. It is an individual matter. You must feel that you have a responsibility to the county society, and as an individual citizen you must take advantage of every avenue open to advancement. You cannot go to sleep and watch the other organizations do the work. From what I have said you will see that there is more in this than what Dr. Ross refers to as a "declining influence". We, ourselves, by our lack of care and forethought, careful study and examination, have opened up the avenues for all the cults. If we were 100% physicians, on the job all of the time, endeavoring to keep up with modern medicine, there would be no field for the cults. So we hope that you will take advantage of every opportunity that is offered to increase your services to the public so that the people will be satisfied and there will be lessened opportunity for service outside of the medical profession.

I have told you several times in our county society meetings that the officers of the state society look upon Bergen County as having one of the most active societies, and Dr. Snedecor's talk today reënforces that opinion. We are delighted with the work he is doing there in his little county with 180 members. They are doing more constructive work along the lines of public relations than any other county society in the state. The field is open in every county and the opportunity is there; it just means 3 or 4 men in each county need to get such a grasp of things as they have in Bergen County. The public is waiting for it and anxious to extend coöperation to the medical profession, if we will just show them how; if we will provide a body to which they can apply for advice and guidance along these lines. Organized medicine has been an intangible proposition. The "Public Relations Committee" is helping to solve this problem.

I cannot resist saying, when Dr. Snedecor says that his county society discovered 100 men practicing in Bergen County who were not registered, that it is an index that we made a big mistake a year ago when we did not put "annual registration in force in New Jersey. The question will come up again before long and I think we should compel everybody who is practicing in New Jersey to put his name on the statute books under the law so that we will know where he is and whether he has a right to practice medicine.

Dr. Henry O. Reik (Atlantic City): I am very glad of the opportunity to express my appreciation of Dr. Ross' paper which is so timely and which discusses our problem so thoroughly; and I may say to all of you that he has already promised it for publication in the Journal and I shall hope to put it in the December issue.

Dr. Ross brought out several very important problems. The particular point I think he perhaps wished to emphasize was the work being done by the Public Relations Committee in New York and I want also to emphasize that because of the situation in New Jersey. We have, in fact, a Public Relations Committe for the State Medical Society but we happen to call it by a different name; it embraces exactly the same work, but we call it the Welfare Committee of the State Society. That large committee has a representative from each and every county, and then breaks up into subcommittees to study special problems. We are not equally well organized, however, in regard to county public relations. We have been asking the county societies for the past 2 years to consider that problem. Several of them have similar committees, called "Public Relations", or "Welfare" committees. But it seems highly desirable that *every* county society should have a public relations committee of its own that can coöperate with the Welfare Committee of the State Society, and especially to look after local conditions.

As to our relations with the public through the Welfare Committee, during the past few years we have extended them as widely as possible and, so far as I know, we are today in touch with every important state lay organization that concerns itself with medicine. Dr. Morrison told you about our happy coöperation with the State Board of Education. We had, 5 years ago, to establish new relations with the State Board of Health because that happens to be in New Jersey a lay organization. We had no difficulty there, however, because the Board was very anxious to accept a status of coöperation with us. We have found exactly that attitude wherever we have gone, so that today the State Boards of Health, Education, Medical Examiners, Institutions and Agencies, Labor Department and various other bodies are coöperating with us; also the medical or semimedical organizations, such as the Tuberculosis Association, the Society of Podiatrists, and during the past year we have made an alliance with the State Pharmaceutical Society, so that it will not introduce any medical legislation without first consulting with our Welfare Committee.

We are keeping in close touch with all state organizations that are concerned with medical practice or medical matters of any kind. I think our alliance with the State Board of Education appears to be one of the best that we have made. Our Field Secretary reported several days ago that her time is almost completely booked from now until May in giving lectures to school children and teachers.

Now we come to some problems where the more local county society can do better work than the state society, and this is shown by the work that Bergen County has been doing so well. There are few counties in the state where that program could not be put into effect. Parts of it could be used even in the smallest counties. In our annual report, reference was made, for instance, to abuse of the public through medical advertisements in the newspapers. Public Relations Committees in the counties could take care of that and help to get rid of much of the bad advertising. You all remember what frightful things appeared in the newspapers as paid advertisements during last winter's influenza epidemic; some of them making ridiculous claims to merit. That could have been controlled to a large extent by the county physicians, where the state society officer would not be listened to. You heard Dr. Snedecor say the Bergen County radio talks will be printed in county papers. Our State Society radio talks have always been mimeographed and sent to every newspaper in the state but I doubt whether they were ever printed in the county of Bergen. An address coming from me does not carry much weight in Bergen County, but if it comes from Hackensack and is signed by a group of physicians who are known

there, the local newspaper editors will take it; an example showing how a county committee may secure better results than one from the state society. We start broadcasting again on November 22 from Station WPG, 15-minute talks on keeping well. We are perfectly willing to mimeograph them if you can get them published in your local papers. We tried last year by writing to the local societies and welfare committee members to find out how many papers were actually publishing these talks. The response was not sufficient to permit drawing any conclusions. We have wondered whether it is wise to go to the expense and labor of sending out copies as heretofore. I should like you to consider whether you can bring influence enough to bear in your respective counties to get such addresses published. If so, we will go on with the plan. One year, the Newark Evening News published them regularly but last year they passed it by. The Camden Courier took it up last year whereas we were not able to get them to do it before. Would you like the Executive Secretary's office to continue mimeographing and sending those addresses to your paper; and will you follow it up and get your county papers to publish them?

As to broadcasting these addresses under the name of the individual who writes the essay or delivers the speech, there has been considerable discussion. We found it was very difficult to get the newspapers to consider an article that was not signed. They felt that merely saying it was issued by the State Medical Society was a bit too indefinite. They were willing to accept a statement prepared by Dr. Smith, for instance, and published under the auspices of the State Society; they were rather glad to do that because it carried the double responsibility. That plan also gave us an opportunity to censor anything that was submitted. For the State Society we have taken this position, that when we select a man to give a talk, or when he voluntarily offers it, that talk is carefully reviewed so that nothing will be said that the State Society would not endorse. Then, public announcement is made that a discussion of cancer, let us say, as a feature of diseases of women, has been prepared by Dr. Conaway or some other gynecologist, and will be broadcast in the name of the State Medical Society. Personally, I see nothing unethical about the use of a physician's name in that way; but if his name is to be used, then, I think the article itself should be carefully read and considered by a board of censors or by some special committee from the county or state medical society before being broadcast.

I happened to notice today in the Times this advertisement of which Dr. Ross spoke, from the 10,000 Doctors of New York, and this excellent work is just in line with what Dr. Snedecor is doing in Bergen County. Having the Life Extension Institute and the Metropolitan Life Insurance Company connected with it is a benefit to the state society. I think if we can get those people to join with us, it is quite an important advance, because they have funds to apply to this thing, which the state and county societies have not.

Dr. Lathrope: There is one thing that Dr. Ross said that struck me as one of the difficulties which I think we as county secretaries run into and which we should keep in mind. The average doctor is a poor hand at organization. He is fundamentally an individualist. I think that is probably one of the things that takes us into a profession. Other things regulate our choice of which profession it shall be, but we are a little bit too much inclined to be individualists and are poor workers in harness. As county secretaries we run up against that all the time. It is one of the things that we must keep in mind and must combat.

Dr. Ross (Closing): There is very little to add. Dr. Corson's reference to a Foundation Fund is an extremely sound thing. We are talking about that a good deal. New York's State Medical Society is large and has a considerable income and perhaps that has enabled us to do certain things which it would be difficult to do if we were not a society of 12,000 members. We have a Board of Trustees and I happen to have served on that Board for 3 years. The aim of that Board has been to so administer the society's income as not to cut down any activity, in fact to expand several, and yet in 3 years to save $65,000. That is the beginning of our Foundation, and we talk about that a good deal. I think that suggestion was one of the soundest things that has been said.

I like the reference to the county medical society, for that is the basic unit. As Dr. Reik pointed out, there are certainly many things that can be done there that cannot be done anywhere else. Our relations to the public can be best made there, and nobody else can develop those ideals.

I want to say just one other thing with reference to county societies doing things that nobody else can do. In Suffolk County we have organized a health department and it is a very great success. We are able to do certain things with great business economy. We are administering the milk laws in Suffolk County at a cost of $8000 instead of at a cost of $25,000. While attending a meeting in another county this year a district officer asked if I would meet the Board of Supervisors of that county, saying they wanted to talk of the Health Department in Suffolk County. I went over to the meeting and they said they had been ready to organize a county health department the year before but a representative of the largest lay organization we have in New York State came before them urging them to do it and telling them *what they would have to do*, one of the first things to employ 14 public health nurses in a county of 37,000 population. The men are mainly farmers, of splendid intellect and this suggestion had killed the whole thing or held it at a standstill for more than a year. Last night I received a letter asking if I could come up sometime in November to a special meeting of the Board of Supervisors, and saying they are inclined to organize a county health unit in that county, and asking if I would come and talk to the Board as I did to the committee on the business side of it and the efficiency of it. I would not for the world go there and tell them *what they should do*, but I am willing to tell them *what we have done* in Suffolk County and let them make their own decisions. That is one way in which we can advance; by giving to the counties an ideal and any information we have, but not telling them what they must do, which would kill the effect of all this more than anything else we could do.

Dr. Lathrope: I am sure we are very much indebted to Dr. Ross for having come from Long Island to talk to us today.

We are next going to hear from one of our own members. After that there will be a short business session and then luncheon will be served. It gives me very great pleasure to introduce our Vice-President, Dr. B. Franklin Buzby, who will speak on:

"THE RELATIONSHIP OF THE SECRETARY TO HIS OWN SOCIETY"

Dr. B. Franklin Buzby (Camden): I have jotted down a few things that struck me, in my neophytic stage as secretary, as of some importance. I have been a secretary only 1 year so I cannot speak with the backing of those years of experience that many of you men have, but some things have impressed me, either before I became a secretary or since, that should be cleared up in my own mind and perhaps in the general mind. We have all heard it said that a secretary of a local society is the heart and soul of that society. That may or may not be so but, it is perfectly apparent that if the secretary is active the society will function fairy well, whereas if he is inactive or slovenly in his habits, the entire society becomes that way. Apparently the secretary is able to exert some influence if he is willing to spend his time and thought on the subject.

To begin with, I don't know what the society's real use for a nominating committee is but I think the secretary should sit in with that committee, even if not as a member; the reason being that when certain members are being selected for office it is so easy to go down the list of names and say John Smith should be given an office, but the result may be that the office immediately goes to pot or the secretary has to run it. I think it would be sensible to ask the secretary to make suggestions as to the officers.

Another question I think is important: Should the same men be elected to office year after year so that only 10 or 12 men are actually running the society, or, should there be a bar against election of men who have shown no interest in the society? Would it not be well to try to get such men interested by electing them to office, and thereby enhance their value to the society, as well as making the society more helpful to them? I question whether the society is run more efficiently by having the same men run it year after year. I appreciate the fact that the smaller societies must do that to some extent because of limited numbers. We all know that not more than 50% of the members of any society are active, maybe less than that. Now why are those other men inactive? I have often wondered whether it is not because they are a little backward or diffident. Perhaps they might be brought forward and made very valuable members. I think we should try to get the interest of all the members and that it would do no harm to give them responsible positions, stimulate them if necessary, but have them carry some of the load. They should also be encouraged to take part in programs even though they may not like it.

Regarding the type of program to be given, we all have program committees, and last year we discussed the advisability of having the same program committee year after year. This year we changed the Camden County Program Committee entirely, the reason being that while the old one was active and doing very good work, it began getting a little slovenly and was receiving some criticism, so we decided to let the critics take the job for the year. The critics had been inactive before and I hope this plan will work them out.

We discussed last year the question whether the programs should be given by local men or by men brought from outside. It is my opinion that the size of the society will decide that question. We have in Camden County approximately 130 members. We are across the river from Philadelphia where it is quite easy to call up a number of men who are very willing to come over and talk to our siciety. Now it has been definitely concluded that, in our county at least, when a man from outside speaks we have an attendance of perhaps 30% of active members, whereas there is a 50 or 60% attendance if there is local talent. That is a local problem, of course.

Regarding delegates to a neighboring society: I asked how the selection was arrived at and was told that the list was gone over and 3 for each county checked off just as they ran across names. That does not seem the right thing to do. It would seem to me that there must be men in the community who have some local interest, who really would like to visit the various societies, and I think that should be the type of man to put on such committee rather than to select appointees alphabetically.

I think, in order to have an interesting meeting, as much business discussion as possible should be avoided. I have attended 3 hour meetings where 2½ hours were spent in discussion of petty business or local or general politics, and the man who had spent weeks working up a scientific paper found everybody asleep, or gone home, before he was called on to speak. We now have a business committee to dispose of unimportant things and only important ones are brought up, very concisely by a member of the business committee, for general action. Of course, this committee should be made up of interested men who will function.

The secretary's business seems to be something more than writing the minutes. He should attempt to attend to his correspondence promptly. He should give formal notice to the men elected or appointed to office even though it is done at an open meeting.

I agree that the problem of the small society is different from that of the larger one, but their problems are somewhat the same. One that was raised last year was how long should the disinterested man, with dues unpaid, be carried on the rolls? Should he be coaxed, threatened or dropped? A few years ago we began writing them, fining them, and dropping them, in the order named, the letters being about a month apart. I do not personally feel that if they have once beeome disinterested they can be again persuaded to take an active interest in the society, unless they may have had some particular grudge against some member of the society which caused them to drop out.

I think it is an excellent idea to send to all the doctors in the county notice of the meetings that are to take place. But does that not to some extent urge them to become members? If they are sent to every man who calls himself a doctor, are we not urging membership upon men who, though eligible, may not be particularly desirable?

I wonder how far a man should enter into politics in the state? We have in Camden County a tuberculosis sanatorium of which every one is proud. There is a state institution at Glen Gardner. When a man is sent from one to the other we must pay his way. The Board of Freeholders recently appealed to us to take a stand opposing a motion, presented by a layman of the Board of Freeholders demanding that a tuberculosis patient be sent to the Camden County Sanatorium. There we would get into petty politics, and personally I would be against it. It would cost but little more to take care of a man at either place

and I think he should be sent where he wants to go.

We have a representative from our county on one of these state agencies who was dropped from membership in the county society several years ago because he was 5 years behind in payment of dues and when approached about it he said it was not worth the payment of back dues to be retained. What should be done with such a man? I do not feel that we should coöperate with him.

Of course, the county society should be heart and soul behind the Welfare Committee in advising things of statewide interest.

Bergen County is to be congratulated upon its efforts to educate the public but some of the smaller counties, such as Cape May, cannot benefit in any way by the efforts of Bergen County, perhaps could not finance such a thing, and it would strike me as a good thing if the state society could get behind this problem and furnish standardized announcements that could be used by those smaller counties. Otherwise, those counties which are not able to follow Bergen will be very definitely limited in their work and pretty well spotted. The southern counties are not of any considerable size and have small memberships. The result would be that the southern part of the state would be poorly taken care of and the northern part well cared for

Another county problem which might be raised again is the economic side of the practice of medicine. The different counties have different ideas perhaps about collection agencies. We grant that the state society cannot get into a thing like this, but if it is of sufficient economic interest to all the members of the state society as individuals, why cannot members, not with the sanction of the state society, but independently, arrange such a thing as this and have it run by a board of directors of their own? Perhaps it might solve that problem. It is just a suggestion.

I can appreciate the stand of the state society on increasing membership, but is the society better off by making a drive to get all the doctors in the county as members regardless of what position they hold in the community and regardless of their attitude toward medicine in general? Or is it better to let them drift as they will, thereby having a society with a smaller attendance but all interested men? I wonder whether or not the men joining in that way do not benefit more from their connection with the society than does the society by having them as members? I know, too, that we have in Camden County men openly spoken of as abortionists who are members of the county society. Should we institute the same program that Bergen County has we would stand back of these men as endorsed physicians and I wonder if that is the correct thing to do? We have shown prospective members the advantage accruing from membership in the county society which means membership in the state society and in the American Medical Association, but to many men that doesn't mean a thing. We have also a moderately priced insurance which appeals to some men and has induced them to become members I wonder if it is worth while or wise to make these extensive drives to get more men into the society? I question it very much.

(While luncheon was being served, the discussion was continued.)

Dr. Frank W. Ash (Passaic County): I am very much interested in the question of programs. This year we tried having some outstanding men visit us. We had Bloodgood, Dandy and others come up and give us papers that were really worthwhile. Combined with that, we have tried to have one local man carefully prepare and present a paper. We feel that our society has grown under that plan and we have a large attendance.

We are very interested in what Dr. Snedecor has done in Begen County and the only thing that has discouraged our county in carrying out such a program is the expense. If we could get a contribution from the Tuberculosis Association it would help greatly and we may be able to follow Bergen in that respect.

Dr. Alfred Woodhouse (Ocean County): Our county society is a rather small one and we do not have the problems that worry the larger societies. We have a larger number of our membership in attendance at each meeting

Dr. George W. Lawrence (Ocean County): Regarding the question as to whether it is better to have an outside man read a paper or to have a local man, I think that the plans should be combined. I believe it is rather bad policy to pass over the local men who might have some message of value and to always have talent from the cities. However, the outside man often brings us a greater message than one of our own members could. I belong to several organizations, not medical, where they have a 10 minute talk by one of their members and 20 minute talk by some distinguished guest. If that plan could be followed, having a paper of even 5 minutes by a local man and a longer paper by a distinguished guest, I think it would add a great deal to the meeting. We usually have in our society a paper by one of our members and we always get a very good response.

Dr. F. P. Wilbur (Sussex County): Ours is one of the smallest counties, having only 18 members. The principal difficulty we have is to get those 18 members together. If we hold a meeting in a town in which the most members do not live we get more men to attend. We try to get local papers but the men will attend in greater number if we have some one from outside read a paper. We have not held frequent meetings but we are endeavoring this year to have more successful meetings. We have just celebrated our one hundredth anniversary.

I have been interested in several of the problems presented but it is hard to see how some of them can be applied to such a small society as ours; though I think we will all find that a great deal of good will come from this meeting today.

Dr. F. H. Morrison (Sussex County): I have been wondering how some of these things I have heard this morning can be applied to our small society. We are an isolated district. I am wondering how these suggestions can be adapted to meet the needs of medicine as it is changing at the present time. I trust that by having outside speakers we will be able to get our society into a more active condition. It is interesting to hear some of the men here speak of the fact that they have 100% membership. That is our simplest matter, but it is hard to get 20% of that membership to do any work.

Dr. F. W. Pinneo (Essex County): Regarding the matter of programs, I should think the character of the program would always be a problem. You cannot always have a program consisting of home talent, visiting talent, scientific or economic problems. I think most men want and enjoy a scientific program. The next great problem is ethics. We must have a feeling that to belong to

the county society means ethical, upright practice. Therefore, I think the programs should include both, most excellent scientific programs with discussion, and also where economics and ethics are fully stated.

As to the matter of collections, 3 different schemes have been considered in our county. I learned that the City Bank, in New York, which is the second largest financial organization in the world, had a small loan plan and that the doctors were using it, so I proposed to our bank that it should organize the same plan—that the bank shall make loans to patients, without collateral, on endorsement to us. Then the patient is paying the bank in installments at a fixed low rate of interest. The doctor is benefited, the patient feels that he is out of debt, and the whole thing is on a dignified banking plan. The advantage would be to remove the doctor's collection of accounts from the collection agencies, which have more or less indifferent success even if their plan is an honest one. The plan has not yet gone through wholly, but I am holding to it hoping that it will go through.

Dr. E. C. Lyon (Cumberland County): Dr. Buzby has covered a lot of ground and touched a lot of snags that some other secretaries have taken years to discover. I agree with him that the secretaries should sit in with the nominating committees as they can help greatly by offering suggestions. In our county we have as many different members on committees as possible so as to make the committee function somewhat better. We try to keep our program committee year after year, however, and have had great success with that plan. We have 2 program chairmen and each assistant arranges for a meeting. We usually have outside lecturers on our programs.

As to delegates to neighboring societies, the president requests any members who would like appointment to an adjoining society to hand in their names and when making up his list tries to appoint these men as delegates to the places where they prefer to go. That gives us better attendance, I think.

We try to conduct our business at the beginning of the meeting and make this as short as possible.

Regarding our delinquent members, we have a very active treasurer. The main difficulty with us is to get the members out to meetings as this is more or less of an agricultural community and patients are in the habit of dropping into the doctors' offices without making appointments. To avoid being detained many of the men do not return to their offices after luncheon on the days of our meeting. In our county when a young doctor comes to town, several of the doctors call upon him and present him with an application blank. Then when a meeting is on hand we make it a point to see that he is notified and he usually becomes interested and joins the society.

Dr. Pinnco: We have often been chagrined when the Official List is published by the State Society Secretary to find certain members not on it. The A. M. A. has a good scheme whereby they communicate with these men asking why they are not in the society. We have made a very definite By-Law as regards the Treasurer's handling the accounts. Our annual meeting has been changed from the first Tuesday to the second Thursday of October and the new By-Law makes it a duty of the Treasurer to have a bill sent to all the members 10 days before that meeting. On the first of December he issues a second notice. The first of January a third notice is sent, if necessary, telling the member he is delinquent and without the privileges of membership in the State Society or the A. M. A. and unless the dues are received before the first of February his name will not appear on the Official List. We expect good results from this plan.

Dr. Corson: I spoke this morning about the financial obligations of the officers of the state society, and recalling the discussion that occurred at the time of the increase of dues I came to the conclusion that a great many of the members do not realize the benefits derived from being a member of the State Medical Society. I believe we should start a campaign of education among the medical men themselves along this line. If they could be made to understand how much cash money they are receiving they would not be so parsimonious about increasing their dues. If we can bring the value of membership to them in a tangible way they will be willing, I am sure, to have their dues increased. We cannot keep our dues at $25. Eventually they must be $50, and when we realize the benefits we are deriving from membership we shall consider it a small amount if the dues go to $100. The benefits derived from the Compensation Law alone, as taken care of by our Welfare Committee, are worth that.

Dr. H. B. Diverty (Gloucester County): I have been a member of our society for 42 years and during that time there have been many changes. The difficulty with us is to get our men to attend meetings. Some of us attend regularly, but many will not come out. The question is how can we make it interesting for them? I belong to a local organization in Woodbury to which every local physician belongs. We call it the Physicians' Association and it has been in existence continuously for 20 years. I don't believe there is any other such organization in New Jersey. We have practically a 100% attendance. The thought has come to me—why not apply this rule we have followed there to our county society? Once a month we go alphabetically down the list and have a meeting at the home of some member who gives us a dinner. At first we called it the Protective Association but have changed the name as that did not sound very elevating. We keep a list of every man in the community who does not pay his bills. We agreed among ourselves that if such a man is making good wages and applies to us for services we will refuse to attend him unless he pays us in advance. We get a lot of maternity cases that are emergencies, where the husband will not pay the bill. If he is on our special list we tell him frankly that if he wants our services he will have to produce the money. He will try several doctors but will usually come back to us after finding no one will attend the patient until he has paid in advance. Of course, we do plenty of charity work but we will not attend a person who is making good money and yet will not pay his bills. Practicing medicine is a joy to what it used to be before the establishment of this organization.

Dr. Snedecor: Friendly remarks have led me back to a rather definite conclusion, that we must have ideals and aim for them. I think nothing is more true than that today we must revise our ideals according to modern notions; we must set a course and then hew to it. Among the many suggestions offered one thing is agreed upon, the county society should have good programs in order to attract all of the members. If you cannot get the doctors to attend the meetings it is rather an indictment of yourself. I feel we should have an

ideal in trying to reach every member of the medical profession and having him become a member of our association. Organized medicine must serve many purposes and for that we need every member of the medical profession. I want to say to Dr. Buzby, in his indecision about this matter, that there can be only one answer, i. e., that every doctor in the community should be a member of the county society if he is in good standing and worthy. We cannot be too critical. If any doctor in Camden is convicted of malpractice or abortion, the county society will get as much of a black eye whether he is a member or not. Organized medicine must take the responsibility today for practically every man who is practicing medicine.

Dr. Tracy (Burlington County): Regarding public relations, I do not think the state society should undertake any extensive advertising through local societies. I think that is a thing we should start in each county the same as Bergen has done

Dr. Hutchinson (Mercer County): It seems that this conference has developed a tremendous amount of material for thought and discussion. I would like, if possible, to get the minutes of all this discussion, so that they could be brought before our society. The subjects have been numerous and diversified and it would be a splendid thing if these speeches could be brought before the members in a way that the secretaries here present cannot do. At least, I personally feel that I am not capable of going back to my society and in one evening covering all this ground and putting it before the members in the concise manner in which it has been presented. It is absolutely out of the question to present to them Dr. Ross' paper. I trust it will be printed in the Journal and that every member will read it because it is of vast importance. All of the speeches have been of great value and I am only sorry the whole society as a body could not be present. I am greatly pleased to have had the privilege and honor of being present at this time.

Dr. Downs (Burlington County): I assure you it has been a great pleasure for me to be here and get first-hand the sentiment of this meeting. It is certainly a sentiment of public service and is well worthy a group of doctors.

There is no question that practice of medicine is changing. I well remember 12 or 15 years ago when the Board of Education would hire a medical inspector and the position be given to the lowest bidder, even if the bid were only $15 lower. Now we have a nurse in charge in my county who is doing good work and the Board of Education asks what can we do for you, what do you want? This is a big change in a short time, not only a change of attitude on the part of the Board of Education but of the people in general. At that time we could not have our children's tonsils removed but now they want them out and want other defects remedied. It is a trend of the time and we must go along with it.

Dr. Benjamin Borow (Somerset County): We have the same problem the rest of the men have referred to. We still have difficulty getting the members to attend meetings. We have tried having inside and outside men as speakers. We changed our meeting hour from afternoon to evening to try to get the men who live in outlying districts to attend. When we have our annual dinner we have 85% of the men out. I surely appreciate the privilege of coming here and listening to the discussion regarding organized medicine and I think it is beneficial not only to the secretaries, but to every member of the societies. I think in the future the secretary's job will be one that will be much sought after, if we are to have these delightful meetings.

Dr. John Irvin (Atlantic County): I am just a reporter, so I am not very conversant with the problems of secretaries. From what I have heard, I guess our society is the only one that does not have a program committee; that function is taken over by the president and has worked out very well. We always have some well-known man from the outside as speaker. Of course, we have had no trouble in getting them to come to Atlantic City; one of the hotels, where we hold our evening meetings, very kindly entertains them without cost.

This year we have had a stenographer take down what the speaker says. We were not able to get a medical reporter but Dr. Conaway's secretary has been very kindly doing this and I take some notes and work it up with her. If a formal paper is read we attempt to get that from the speaker but [illegible] always willing to give it up. After transcribing the notes we send a copy to the speaker in order to let him correct it if he desires.

Dr. Lathrope: I should like to take up a few of the things brought out by Dr. Buzby. Our Nominating Committee is elected. We generally write the chairman a letter and tell him what the precedent has been in regard to offices; for example, there is no by-law to that effect but the retiring president is usually made a member of the Executive Committee. I think the secretary has to know what is going on in the society in order to keep things running along lines called for by the Constitution and By-Laws, because beyond the secretary and treasurer I doubt whether any other member ever reads that document excepting on special occasions when he has an axe to grind.

Dr. Buzby asked whether the same men should be kept in office for a long time. I think the secretary's job should be a more or less continuous one, also the treasurer's and reporter's. When chosen I said I would take the position of secretary for 5 years, and at the end of that time I shall resign because I think there are other men in the society who can and should do the work and I do not think it should be saddled on one man for too long a time. I also think it is better for the society to have a change occasionally. This is, however, merely a personal opinion and the society may feel differently about that in some cases. I think it is a good plan to get men in, particularly the men who sit around and growl. They should be given something to do. Generally, if a man *criticizes* he is *thinking* about things and that is the sort of man you may want to get on the job. I know of one instance where a man was a chronic kicker, but made one of the best officers that society has had for a long time, when he was put in as president.

I think the type of program we have had today is an extremely good illustration of what is needed. We have had an exceedingly capable man from outside come and give us a very interesting paper, and we have had also one of our own men give us something from his own personal experience, and I think it is doubly interesting to have a mixed program. We have in Morris County several meetings during the year when we have outside speakers and we have 2 meetings taken care of by our own men. One is very apt to be a symposium on —let us say pneumonia—anything in the way of personal experience or personal views; the next conducted by our own members consists of case reports, which are exceedingly valuable and any

man who has had an interesting experience should be able to describe it. That hits another of my hobbies: Every one who has practiced medicine 10 or 12 years has learned something out of that practice, and by studying his case records he will get a great deal more out of that study from his own personal notes than he will from reading any books or magazines; put it down on paper and bring it before your county society. I think it is the best sort of education and makes a very interesting program.

Regarding the disinterested and delinquent members: if a man is not interested in the meetings but pays his dues, hang on to him. The purpose of every county society is to have every eligible physician a member. That is my clear conviction, especially after working with the By-Laws and Constitution Committee of the State Society. That is the purpose of the A. M. A. We do get men who are not entirely ethical, who will not please us socially or professionally. Until a man is convicted, however, you cannot throw him out. As Dr. Snedecor said, he will bring a great deal of disrepute to the profession anyway whether or not he is a member of the society, and we cannot drop him without evidence no matter how suspicious we may be.

Dr. Reik: As to the question of membership campaign, I am very glad the President of this organization has expressed it so clearly that it is our duty to be broadminded and take in every eligible man. While you may get some undesirable members, I think the probability is that you already have in some whom you would like to get rid of and I doubt very much whether the average licensed practitioner outside the society is any less desirable than the average of our members. You may have a good influence upon them if taken in; some of them may help to improve the society. A broader judgment should be exercised in that respect. Since reference has been made to unethical members, I think it is high time you were getting rid of those who abuse county society privileges and the code of ethics. There is so much talk throughout the state about unprofessional conduct, fee-splitting, etc., that I think the state and county societies should endeavor to clean the membership lists.

I do not believe the question of cost of membership is a particularly vital one. The dues have been raised several times and if it should become necessary to raise them further I think you will find that the men are willing to do it. Many of you are members of Kiwanis and Rotary Clubs and pay $50 or $75 for membership in such club. Certainly that is not worth as much to you as membership in the State Medical Society.

I want to direct your attention to the character of programs, for I think a great deal can be done by making them more attractive in appearance when issued to members. One society has simply sent out a card giving the date and place of meeting, without any program on it. There is nothing there to attract the members, if they happen to have something else to do on that day. Occasionally a society can have a meeting without a specific program but it cannot happen successively. In addition to putting on the card who will read papers on certain topics, you might well carry a sentence giving some special reason why members should attend that particular meeting; observe the Bergen County Society program, how it entices members to attend the meeting.

Dr. Morrison has been urging for the past 3 years that the county society devote at least one meeting during the year to some problem of economics as it concerns the organization. That excellent idea has been adopted sporadically but by no means generally as yet.

Now, Dr. Buzby cast a bait in my direction, I suspect, and I may as well rise to it; i. e., his reference to collection agencies.

At the annual meeting of the state society the question of collection agencies came up again. I might say that the advertisement of the Knickerbocker Adjustment Company in the Journal has expired and has not been renewed. During the convention, that company tried to induce physicians to organize a collection agency of their own. Of course, the company representatives had in mind that they would be employed as the individuals to do the work. I don't think it would have succeeded because the feeling against the company, justified or not, throughout the state, was too strong, but it is not a bad scheme of itself. I raised the question at the Welfare Committee meeting 2 weeks ago as to whether the state society should consider the organizing of some means to collect for its members. It was considered wiser to refer that question to each county society, the problem being different in each county. During the past year, the Journal has published 2 special articles on that subject, one dealing with a physician's county society collection agency in the city of Birmingham, Alabama; another in one of the New England towns. There are 2 societies that have published their reports where the county society acts as collection agency for the professional bills of its members. A little more than a year ago the Philadelphia County Society organized such a Bureau within the county society and the Executive Officer of that organization is the agent. Now, I do not recommend it to you, but each county society might well consider that point, as to whether you might adopt one of those 3 schemes. Two have been published in the Journal and as soon as we can get positive information about the Philadelphia method we will publish that.

Dr. Hutchinson need not worry about having the minutes of this meeting to take to his county society. Ask all the members to read the Journal because the full minutes will appear in the December Journal.

Dr. Irvin said he was only a reporter. I wish there were more of them here today and I wish we had more reporters as good as Dr. Irvin. I do wish you would urge your reporters to send in their reports immediately after the meeting. It would save our office a great deal of trouble and be much easier for us and for them. We have to send several letters and often telegrams requesting the reports. We sometimes have to go to press with 2 or 3 meetings unreported.

Dr. Morrison: I have been waiting for 6 long weary years to have someone, not an officer of the state society, get up on the floor and make a plea for a respectable Foundation Fund, such as Dr. Corson has asked for today. We are the oldest State Medical Society in the Union, I believe in the English speaking world, and we have only about $7000 saved. Mercer County with a membership of about 140 has a fund of $6000. Little Bergen County with a membership of 120 had put aside money enough to do something when the time came. I remember there was some discussion at first about raising dues and some of the leaders in New Jersey today opposed this scheme very forcibly. They could see no reason why the state society should ever accumulate a fund of $50,000, no reason why any reserve should not rest in the

pockets of the individual doctors, and believed if the time ever came when it was needed the doctors would gladly subscribe. That has held down the building of a permanent fund for many years. We never engaged in so many activities as are claiming our attention at this time. There was never the necessity for spending money, for promoting the welfare of the profession as there is today. I was very much pleased to her Dr. Corson's remarks about this. He need not fear any loss of membership. Every time the dues in the state society have been raised the same question has come up and always the membership has kept on increasing. The questions discussed by you today show the necessity of having a Fund the interest of which at least could be spent in promoting the welfare of organized medicine in the state.

Regarding this membership drive, I feel that the province of organized medicine is to bring within our folds every reputable physician in the community, I mean every physician who has not proved himself to be disreputable. We have conditions in our county societies where one doctor scarcely recognizes the other for some personal reason, perhaps, but they are both members of the society and deriving the benefits therefrom. I know other instances where thoroughly good men have been kept out because of some personal grievance on somebody's part. The greater influence you bring to bear upon these men the better, and whether they will attend the meetings or not is for them to decide. Let them pay their dues and you can get along without them if they do not want to attend, but I believe organized medicine should offer membership to every reputable physician in the state.

As to programs, it has been said that the smaller societies cannot do much with this public relationship work. Three years ago I pleaded with you to give up one meeting a year to medical economics and another to public relationship. One card came to me from Cape May County, with only 18 members, and on it was printed a complete public relations program, dealing with municipal matters. Those same problems exist in every county, and there is something going on in each county concerning which the medical profession should be on the job. The secretary or some member of the society should call it to the public relations group who should see that the matter is taken care of. The matter of programs will always be a matter to be considered by each county society as to what type of program is best for them. An outside man of national reputation is desirable at times, even if only once a year, and you have enough local talent to fill in. In one county I heard a paper read by Dr. Barkhorn which should not be missed by any member. It was a paper based on nose and throat work, but such cases as you see in your offices every day, telling you how to deal with them. Again, in Warren County, I heard an excellent address on fractures. It was one of the most practical things I have ever heard. The speaker had a series of x-ray pictures and brought his own apparatus there. He brought out points that were so pertinent that no man could afford to miss the talk. Those are the types of men you want to get hold of, who will bring you practical things. If they are not available in your community, and you will write to us, we will be glad to suggest speakers.

Another point I have been urging is that you hold a clinical meeting occasionally in your county. I attended one such meeting where hospital material was brought in, case records presented, course of treatment outlined, and it was intensely practical and instructive. In Passaic County there will be some purely clinical meetings held this year.

In discussing our relation to the State Board of Education, I want to give you a little slant on that, regarding Dr. Ireland's position. I had a letter from him the other day saying that one of the School Superintendents had requested supplies to be used by the nurse in treating children and he was astonished at the number of drugs and remedies asked for. He pared the list down to the mere requirements for emergency work before sending the children to a doctor and he told the nurse why he had done it. The suggestion came from the State Boards of Health and Education that they were anxious to do away with all clinical work at the public schools if the doctors would only show them that they were taking care of the health of the children in their communities.

I would like to see the time come when our Medical Practice Act will be revised so that all grievances among physicians will be acted upon; where any unethical act will be taken under legal advisement and action taken; also where action can be taken on complaints of the outside public regarding treatment by a doctor. The time is here when we should take some definite steps toward clearing our own ranks.

Dr. Buzby (Closing): I want to thank all members present for their discussion of my own little personal problems, which seem to be general problems as well.

I brought the question of the increase in membership up, knowing quite well the attitude of the state society. What I wanted to get was the attitude of the local societies relative to the type of man to be taken in. As Dr. Reik so aptly put it, we all have members we would like to get rid of, but whether we should use an opportunity to add to that list was the question I wanted to raise.

I wish to thank Dr. Lathrope for the suggestions about the program containing case reports. I do believe that no more interesting program could be put on than one giving 8 or 10 case reports, limited to a short time for their presentation.

Dr. Reik: I do not want to be understood as saying that every man in practice should be taken into membership in the society; if he is not reputable keep him out, but be charitable in your judgment of men not convicted of bad conduct.

Dr. Buzby: I understood that exactly.

Dr. Pinnco: I desire to offer a motion, as follows:

"That the House of Delegates of the State Society be requested to create in the new Constitution and By-Laws status for the reporters by providing that each county society be entitled to elect its reporter a member of the House of Delegates for the term of one year while reporter of his county society."

I would like to present some reasons for advocating this amendment:

"(1) The old Constitution and By-Laws made the reporter an Annual Delegate provided his report was received by the Committee on Scientific Work 30 days before the annual convention. Under the new order the only provision for reporters is in Chapter X, Section 7, of the By-Laws, which says:

> 'Each component society shall elect a reporter, who shall furnish the Editor with brief reports of its meetings and of items of interest concerning the society and its members, extracts of papers and interesting case reports, notice of the prevalence of contagious and

other diseases of the county, and the election, removal or death of members.'

This gives the reporter no status in the State Society, whereas the office was created by the State Society and has important relations to it, and not only to the county society.

(2) The effort in all the county societies is to get efficient work by the reporter and it is a difficult and thank-worthy job. The reporters are entitled to, and encouraged by, appreciation of their work. This would give dignity, honor and opportunity to them.

(3) The reporters, being county officers, have knowledge of county matters which is of value to the State Society and should be made useful therein. This would add efficiency to the State Society.

(4) The plan makes no change in other delegates, nor their terms of office, nor does it encumber the House of Delegates, making an addition of 21 members only. This would not involve other changes.

(5) The legislative principle of numerical representation of counties is already approved in the Constitution's providing that 'each component society shall be entitled to 'at least 3 delegates'.

(6) In wording the Revision of the Constitution and By-Laws, one plan, to provide for a larger representation of the smaller counties, was to cut down the ratio from the larger counties, but was abandoned for ratio of 1 delegate to 15 members throughout. It was suggested that if some one could design a plan for combination, in one Assembly, of a Senate and a House of Representatives, it would satisfy equally small and large counties. The plan now suggested accomplishes just this. Each county, large or small, would have an additional member of the House of Delegates, its reporter, elected for 1 year."

Dr. Pinneo further moved that the secretaries of the county societies be acquainted with it and that the county societies act upon it shortly.

Dr. Lathrope: The Chair feels that anything we can do to make the reporter's job more important is a good thing to do. The reporter has a difficult and often unrecognized lot of work to do. The society often does not give him much credit for what he does, and he is continued year after year provided he is functioning. If that office can be dignified it would be a great help to the reporter, I think. I believe the House of Delegates would be strengthened by the presence in it of a body of county officers of this sort.

Dr. Morrison: I regret that this did not come up before the revision of the Constitution and By-Laws. There is no desire to lessen the standing of the reporter, but we thought that making the provision that the reporter be chosen from the elected delegates would take care of that. We did not foresee any difficulty in having the reporter form at least 1 of the 3 delegates chosen. I feel it will be an excellent time to offer an amendment to the Constitution. Everything should be done to elevate the position of the reporter, make him feel that he is appreciated, give him some position in his county society and put him in line for promotion. It would ultimately increase representation in the House of Delegates for the smaller counties. There are several counties that have less than 4 members in the House of Delegates and this plan would increase their representation, whereas in the larger counties it would only be a small relative increase. Whether that would be agreeable to the House of Delegates I don't know but I certainly favor bringing it before them in the form of a proposed amendment to the Constitution.

Dr. Reik: I have no objection to file but I would like to ask a question concerning it. I see one possible weakness in it: Might not this establish a precedent for asking that the secretaries of all the county societies shall be considered, and also that members of the Welfare Committee from each county would have an equal right to ask for representation, and this would swell the House to an inordinate degree. The secretaries of the county societies are equally as important as the reporters and would have an equal right to ask for representation.

Dr. Lathrope: This is simply reviving what has already been a precedent. If this motion is passed, is it your idea that it should go to the various secretaries and come as a proposal from each county society rather than as a proposal from this organization?

Dr. Pinneo: Yes, but independent of that, provide that it is to go to the House of Delegates from this conference also. We do not want action taken but we want discussion from the county societies. We want it to go from this conference.

Dr. Pinneo's motion was seconded and adopted.

Election of Officers

The following officers of this organization were nominated and duly elected: President, George H. Lathrope; Secretary, A. D. Hutchinson; Vice-President, B. Franklin Buzby.

The President asked what time of the year was considered best for the meeting to be held.

Motion was made that the annual meeting be held during the first week of November at Trenton, preferably on Wednesday. This was seconded and duly approved.

Adjournment at 3.45 p. m.

Respectfully submitted,
A. D. Hutchinson, M.D.,
Secretary

MINUTES OF THE WELFARE COMMITTEE MEETING

The organization meeting of the newly appointed Welfare Committee was held at the Stacy-Trent Hotel, Sunday, October 27, being called to order by Dr. Andrew F. McBride, President of the Medical Society of New Jersey.

The following named members responded to roll call: Barkhorn, J. G. Coleman, Conaway, Costill, Dandois, Davis, Donohoe, Ely, Emerson, Emory, Green, John F. Hagerty, D. Leo Haggerty, Lippincott, Londrigan, McBride, McCormack, McMahon, Morrill, Morrison, Morrow, Remer, Schauffler, Sewall and Sherman. Dr. Charles B. Kelley was present to represent the State Board of Medical Examiners. Excuses were received from Drs. Clayton, A. H. Coleman, Larkey, Mulford and Schlichter.

In response to the President's announcement that the first order of business would be the election of a Chairman for the committee, Dr. A. Haines Lippincott, of Camden, was nominated by Dr. Green and unanimously elected.

Dr. Lippincott: I accept this honor with a great deal of hesitation, for I know better than any of you my own limitations. I know that I am accepting an important task, for my predecessors, Drs. Eagleton and McBride, have made the chairman-

ship of this committee a most important position. I ask your indulgence for any of my shortcomings and promise to do my very best in the performance of my duty.

The Executive Secretary will now present his report, with suggestions for the winter's work:

REPORT OF THE EXECUTIVE SECRETARY TO THE WELFARE COMMITTEE

Trenton, New Jersey,
Sunday, October 27, 1929.

Gentlemen:

The activities of the state society, in so far as the Journal and the Executive Secretary's office are concerned, have proceeded along normal lines during the summer. The Field Secretary, Mrs. Taneyhill, has been very busily engaged in developing the plans outlined by her and endorsed by the state society at the annual meeting in June, and she reports meeting with a high degree of success, especially with her school program. She has arranged a travel itinerary for the state and with the aid of Dr. Ireland, Medical Director of the State Board of Education, has presented this to the county school superintendents with a request that they arrange for local appointments to fill in the time allotted to their respective districts. Of the 21 counties, 18 have already accepted the plan and it appears that she will be pretty fully occupied with the school program from now until the end of May. The county medical societies and the women's auxiliaries are being asked to fill in gaps wherever her school engagements show available time, and Rotary, Kiwanis and other club engagements will be accepted when possible. Dr. Ireland has promised to give the Journal a page or more material monthly on the medical problems of school physicians. We accepted his offer in the belief that by linking up with the Board of Education we shall make more rapid progress with our general preventive medicine program.

We have renewed for another year the agreement to broadcast health talks weekly over WPG—Friday evenings at 8.30—and will appreciate it if members of this committee will volunteer to prepare, and deliver when possible, fifteen-minute speeches upon appropriate topics. Also, in accordance with the recommendation in our annual report, adopted by the House of Delegates, we have called upon the county societies of Essex, Hudson, Monmouth and Passaic to inaugurate similar broadcasting programs from radio stations in their chief cities, and we trust it will prove feasible to deliver health talks in that manner at least weekly from stations in Newark, Jersey City, Asbury Park and Paterson.

Following action taken by the House of Delegates upon Dr. Morrison's report, the President appointed a special committee to consider the submitted plan for graduate medical instruction and we are informed by the chairman of that committee, Dr. Cosgrove, that conferences have been held with the officials of Rutgers and that plans are developing satisfactorily. Details concerning the courses to be offered will be published in the Journal in due time.

The proposed establishment of mental hygiene clinics throughout the state was discussed by the House of Delegates and by the Pediatric Section of the state society in June. As the question was presented in the House by the Committee on Public Health and Sanitation, the society instructed that committee to continue its work. In the Pediatric Section a special committee, under the chairmanship of Dr. E. C. Jackson, was appointed to aid in development of the plans presented by Dr. Plant. We are informed by Dr. Jackson that his committee has been enlarged to include members having expert knowledge of this subject and that arrangements are being made for coöperation with the committee on Public Health and Sanitation and also with the State Department of Institutions and Agencies. Dr. Jackson has also requested, and the Editor has granted the request, space in the Journal for "a series of monthly articles starting with the a, b, c's of mental hygiene, and gradually increasing the dosage in successive articles up to the point of saturation".

The prompt action of these 2 committees is certainly to be commended.

We are in receipt of communication from the Bureau of Legal Medicine and Legislation of the A. M. A. submitting a draft for "uniform state narcotic acts". We doubt, personally, the wisdom of introducing such a bill to the General Assembly of New Jersey, but perhaps that is a question to be considered by a special committee of this body; the Secretary frankly acknowledging that he is prejudiced against all such restrictive legislation and is thereby rendered incompetent to decide what action *should* be taken by the society.

In his annual report, the Secretary called attention to certain bills before the last General Assembly at Trenton and to the possibility of their reappearance. Special attention was directed to that bill designed to regulate the practice of surgery and surgical specialties. We have since noticed that this question was under consideration at the meeting of the Medical Society of New York in June. In his Presidential Address, Dr. Trick said: "Our state society has long been recognized as a pioneer in the establishment of appropriate standards of excellence (requirements) for those who would study medicine; for the graduate in medicine and for his licensure; but there has always been a serious defect in our system of standards. This defect has been responsible for the infliction of many an injustice on the public and consists of an utter lack of legal standards for the specialists. This fault or defect is becoming more and more apparent with the rapid increase of specialism in modern medicine and should receive your thoughtful consideration."

The committee to which the President's Address was submitted made the following report upon that particular topic: "The committee recommends that the Medical Society of the State of New York memorialize the Regents of the University of New York with a view to establishing some method for the legal certification of competent specialists."

The above recommendation of the committees was adopted by the House of Delegates.

We can only venture a guess as to whether Assembly Bill No. 290, of last year, will be reintroduced, but we feel, as apparently our New York confréres did, that unless the profession takes care of this problem, the state is likely to do so, and, we would respectfully suggest that this is a matter of sufficient importance to justify the appointment of a special committee to give it careful consideration.

In another section of his report, the Executive Secretary asked for, or asked if it were not desirable to start, a "fact-finding investigation" with reference to rumors of fee-splitting and other unprofessional conduct by physicians in this state; presenting his reasons for raising that question. The Business Committee reported upon that section as follows: "It does not seem advisable, to your committee, to have such special investigation

by any special action on the part of the society. The question of fee-splitting, relationship between physicians, advertising, etc., should be carefully watched by each county society and if of sufficient importance referred to the Councillors of the state society."

In our opinion, that report merely side-steps the question. There was no opportunity to discuss the question at the annual meeting because the Business Committee's report was presented in the closing hours of the last session and the report was considered and adopted as a whole without discussion of its several parts. We *still* think this is a question that should be given serious consideration. The American College of Surgeons has on file a long list of applicants for membership from this state, many of whom are being denied admission to the college because members of the Credentials Committee say that these applicants are under suspicion of being fee-splitters. If these accusations or insinuations are groundless, the applicants are being slandered without an opportunity to defend themselves. If the suspicions have a basis in fact, we ought to know the truth, for these applicants are all members of this state society. The question will never be investigated by the county or other local societies. If the question is to be dealt with effectively, it must be handled by the state society or by some national organization. So, we lay the question before the Welfare Committee: Do these reports and rumors of unprofessional conduct constitute a matter for investigation?

Just after our annual meeting in June, it was our privilege to attend, as your representative, the annual meeting of the State Pharmaceutical Association, at Asbury Park; and, addressing that organization, we made the suggestion that it might be advantageous to both parties if the pharmacists would confer with the physicians before introducing at Trenton legislation that affects both professions. We took the liberty of saying that the Welfare Committee would welcome a delegate, or small delegated body, from the Pharmaceutical Association with whom such conferences might be held. The Association received our suggestion very kindly, and we are in receipt of the following communication: "The matter referred to in your address at our recent banquet was referred to the Board of Trustees and I am instructed to inform you that we are unanimously in favor of your suggestion of coöperative effort in matters of legislation and other interests affecting our respective professions. Our new President will undoubtedly appoint someone to coöperate with you but in the meantime you may feel free to communicate with the Secretary's office whenever anything comes up in which we can be of service to you."

Since the receipt of that letter, another has come from the Secretary of the Pharmaceutical Association, requesting our coöperation in the revision of the United States Pharmacopeia now being prepared, and particularly asking that we publish a questionnaire (copy of which is submitted) and request physicians to fill it in as an aid to the revision committee.

We trust that you will approve our action in proposing coöperation with the pharmacists and authorize an invitation to their representative to attend Welfare Committee meetings when questions affecting both bodies are under consideration; and that you will further act upon the request regarding the questionnaire.

During the past year there was much talk about the difficulty encountered by physicians in collecting accounts and expression given to much dissatisfaction with collection agencies. The Journal has carried 2 special articles explaining methods employed by medical societies that conduct their own collection bureaus. We have learned recently that the Philadelphia County Medical Society has inaugurated such a system and that it is working satisfactorily. If you feel at all inclined to consider having the State Society or any of its component branches establish collection bureaus, it might be well to provide for an investigation of the Philadelphia plan.

Respectfully submitted,

Henry O. Reik, M.D.,
Secretary

Chairman: Unless there is some other suggestion as to mode of procedure, we will discuss the Secretary's recommendations in the order in which he has submitted them.

Dr. Reik: The first item calling for any action concerns the "Uniform State Narcotic Act", submitted by the Bureau of Legal Medicine and Legislation of the A. M. A.

After some discussion, the Chair requested Dr. D. Leo Haggerty to investigate the present status of Jersey laws affecting use of narcotics.

Dr. Reik: The second subject concerns our inquiry as to whether "reports and rumors of unprofessional conduct constitute a matter for investigation" in this state.

Upon motion of Dr. Schauffler, the Chair was instructed to appoint a special committee of 3 to consider this question, with special reference to the charge of fee-splitting.

The Chair appointed Drs. Lucius F. Donohoe, Walt P. Conaway and J. Bennett Morrison to consider the question of fee-splitting.

Dr. Reik: The third question dealt with the question of legal control of the practice of surgery, and requested the appointment of a special committee to consider what, if any, action should be taken.

Upon motion, duly seconded and unanimously adopted, the Chair was authorized to appoint a special committee of 3 to consider this matter.

The Chair appointed Drs. John F. Hagerty, William G. Schauffler and Joseph G. Coleman.

Dr. Reik: The fourth question is whether you will endorse and approve our coöperative arrangement with the Pharmaceutical Association.

Upon motion of Dr. Schauffler, unanimous approval was given to the arrangement made by the Secretary.

Dr. Reik: The fifth and last item concerns the collection of physicians' bills, and our suggestion was that, if you consider this a possible function of the state society, it might be well to appoint a committee to study the plan now in operation in the Philadelphia County Medical Society.

Dr. Conaway explained a plan working satisfactorily in Atlantic County where a "credit rating" service is conducted in the interest of the county medical society through the Atlantic City Chamber of Commerce.

Dr. Londrigan moved that the question be referred to county societies for such disposition as they might severally prefer. Some discussion followed by Drs. Schauffler, Ely and Reik, as to whether this disposition of the question would produce any results. Dr. Londrigan's motion was adopted.

Dr. Hunter: I am requested by Dr. Diverty, of the Gloucester County Medical Society, to pre-

sent for your consideration a proposed amendment to the public education laws which would bring medical inspectors of public schools under the "tenure of office" act.

The Secretary read the proposed amendment, and after discussion in which Drs. Hunter, J. G. Coleman, John F. Hagerty, Schauffler, Costill and Reik took part, Dr. Hunter's motion to refer the subject to a special committee for consideration was lost.

Dr. McBride announced the receipt of a letter from Assemblyman Leap, of Salem County, bearing upon legislation that would meet in some measure the demands of the cults, and suggested that Mr. Leap be invited to attend a meeting of the Welfare Committee and submit his views to the entire body.

Upon motion of Dr. Kelley, it was voted to extend such an invitation to Mr. Leap.

Dr. Barkhorn called attention to the action of the House of Delegates in withdrawing the financial support heretofore tendered to members of the society when under prosecution for malpractice and after some discussion, participated in by Drs. Morrison, Barkhorn and Green, moved that the Welfare Committee request the Board of Trustees and the House of Delegates to reconsider this question. His motion was seconded and adopted.

Dr. Londrigan called attention to the efforts made last year to procure a law safeguarding hospitals in the collection of money due for the treatment of emergency cases and asked that those efforts be continued in the next General Assembly.

Chairman: I will re-appoint the old committee, of which you are chairman, to continue that work.

The meeting then adjourned.

Henry O. Reik, M.D.,
Secretary.

The Woman's Auxiliary

JUST WHAT CAN WE DO ABOUT THE FUTURE?

By a Physician's Wife.

(Believing it of interest to all of the women members of physicians' families, and certainly of import to physicians themselves, if they can be induced to read it, we are reprinting in full this article from Medical Economics, October 1928.—Ed.)

"Health, Wealth, Happiness—we all want them for our families, don't we? And the first and last of the 3 depend absolutely on at least a moderate amount of the second.

How, then, can we become, if not wealthy, comfortably well off? As loyal wives we all agree that our husbands are clever, busy, have a fine practice. But do you honestly expect to accumulate wealth from that practice?

If you have some bonds away in the strong box, along with nice green coupons tucked with the deed of the house and a couple of gilt-edged mortgages, these treasures have pretty certainly not been purchased out of the checks and money orders and cash that came straggling in after the monthly statements were issued, unless and this is important—unless the ambitious practitioner and his equally ambitious wife have maintained, from the day the brand new shingle went up, a systematic saving, month by month and year by year.

After all, it is not what we earn, or collect, or even spend, but what we save, that counts for success.

Saving cannot be done by one member of the team alone—it isn't fair to expect it, and it isn't really appreciated and enjoyed unless husband and wife practice economy together, save up for a mutual goal.

The time to begin is right away, as soon as the first patient pays his bill. Remember that $100 saved during the first year of team work, sensibly invested, is equivalent to $200 saved 12-13 years later.

The first year is always difficult. Building up a practice is a weary job, and even with a reserve to draw on the young practitioner and his wife lead perforce a rather hand to mouth existence for a while.

Youth, however, with its vim and enthusiasm, is the ideal time to endure privations and sacrifices. We are happy just being together, getting acquainted, exploring new possibilities, and accustoming ourselves to each other's limitations. It is a great adventure. Shoulder to shoulder we face the public, our public, from whom our doctor-husband expects to earn a livelihood.

We must keep up a brave appearance, even if the larder is nearly empty and next month's rent day approaching. No matter how slim the young doctor's income may be, patients expect him always to be well-dressed, to roll up to their door in a smart automobile.

An impressive office equipment, even though some of it is unnecessary and rarely used, is a strong advertisement that the new practitioner dares not overlook. His problem therefore is more complex than that of his business contemporary just starting in; for money must be spent in these necessities, if for no other reason than for advertising purposes. The doctor and his wife must find other ways in which to economize.

It is small wonder that when the shekels do begin rolling in our tendency is to seize them and greedily turn them into immediate comforts and luxuries.

There is probably no profession that makes so many monetary demands upon the individual as the medical profession. The doctor's name heads every "sucker list." His daily mail brings appeals for charities public and private, both worthy and unworthy.

There are tickets at $5 each for benefit boxing exhibitions, for theater parties and card parties to aid crippled or blind or underprivileged children. There are drives launched to build new hospitals (in which, incidentally, only a few physicians will have privileges when the hospital finally is built.)

These, of course, are only incidental demands on the doctor's exchequer, and some of them must be answered. Appeals by mail can be more easily dodged than can the persistence of patients who are peddling magazine subscriptions, or professional beggars or collectors who invade the office in person. The doctor's ear is always cocked to hear a call for help, his door stands hospitably ajar, and it seems that all the world has entrée to his consulting room.

As the young practitioner's family increases and his practice grows, the financial demands increase by leaps and bounds. Hence we frequently find that at middle life, when the phy-

sician is showing the strain of his intensive career, the financial reserve of the family has been neglected. It is always "next year" that the doctor hopes to start his savings account; meanwhile that old thief, procrastination, has stolen away the financial independence that he ought to have to give him a proper sense of security. In a few years, perhaps, he will begin to falter a bit in the rapid pace that life has set for him.

We wives must meet the situation bravely, loyally, proudly. It is an honor to be a physician's wife; it is also a great responsibility. Too many doctors collapse just when their value to the community is greatest. My husband's old professor of medicine at college used to prefix his lecture on diseases of the heart with the statement, "Let us now consider the doctor's disease—Angina pectoris."

While I have no scientific medical knowledge, it has struck me as peculiarly significant that so many physicians succumb to this disease.

In the prime of life—say, between 45 and 50—they have reached the goal of a big practice, a fine reputation, a prosperous family. They are apparently well and going strong. Then, along comes a sudden heart attack, and the community loses a fine physician. To be sure, no individual is indispensable to the community. There will always be doctors to heal the sick.

But for the doctor's widow the loss is devastating. The years of experience and training, the fine practice, have no money value now; even the big house and the expensive car are liabilites.

In most families the husband brings in the cash and the wife spends it; and the physician's family is no exception. We wives ought to feel ourselves responsible for the financial success or failure of our own husbands. Certainly a physician's wife, if for no other than selfish reasons, should see that the family finances are in such good condition that when her husband reaches the age of 40-45, when the strain of his vocation is bound to tell on him physically, he can afford to slow down a bit and relinquish some of his activities. Even though the income from his practice will be considerably curtailed thereby, such loss of earned income will be compensated for by income from the accumulated savings of past years.

I know that most wives will agree with me that we prefer to have a husband who will be able to carry on for many years with a smaller income from his practice, than one who will abruptly terminate his career at the age of 45 or 50 with an income 2 or 3 times as much.

Each individual case, of course, has its own problem; we must decide for ourselves how best to work out the solution.

Generally speaking, I would determine to set aside as savings a definite percentage, no matter how small, of each month's income; and make the remainder suffice for living expenses the following month.

I would live on potatoes and cheese, if necessary, until I had brought the family expenses to the point where we were living each month on past received cash, minus the fixed percentage determined on for saving, and not on prospects of future payments.

In that way, when collections are good one month you can enjoy them the next month, but when the income shrinks (and you know as well as I how a doctor's income fluctuates from month to month), then economize the next month.

It may mean sacrificing a chicken dinner or a theater party. It may mean revamping your old dress, or relinquishing the idea of a new hat, or carefully repairing the run in your silk stocking instead of purchasing a new pair.

But the glorious feeling of financial independence later will repay you four-fold. As the income increases, of course, expenses will increase too, but if we are insistent, and keep to our percentage basis, our savings will grow in the same proportion.

When the month-by-month savings have accumulated sufficiently, invest them in safe securities, and reinvest the interest on these investments. Guard yourself and your husband against the persuasive stock-salesman or the flamboyant circular that will make you a millionaire in a month by selling you a few hundred shares of stock.

If you carry out this plan you will probably find out that when you and he have reached middle life, and the strain of his work is beginning to break him, your doctor-husband can afford to relax. In proportion as you have saved in the early days of practice, you can now add years to his life and yours, years rich in companionship and happiness. But you must save, and not promise to save.

I feel sorry for the unmarried physician who is trying to build up a practice. His lack of a wife is a big handicap in other ways than helping to save. I don't mean that it will spoil his chances of success to cook his own meals, or eat boarding house food. There are other reasons why the doctor needs a wife. In the first place, she can protect him from the wiles of neurasthenic patients and unscrupulous ladies with nothing to do and plenty of time and money to do it with. Furthermore, she is the person best fitted to help him in his business activities.

Telephone calls, monthly statements, social contacts, fall naturally to the wife's share; and especially the tone and character of the office furnishings. The physician's wife must be a true homemaker. Appropriate pictures, magazines, flowers—these are really as important in their way as are sterilizers and the office scales. Cleanliness combined with artistic arrangement is the goal toward which we strive, just as conscientiously as the other partner labors for up-to-the-minute apparatus and the newest text-books. This, I think, is one of the compensations for the many disappointments, heartaches and restrictions that we doctors' wives have to suffer.

I know a fine way for the doctor's wife to secure fresh inspiration and enthusiasm for her job, and that is to visit other doctor's offices. Watch how the attendant (whether nurse or domestic) answers the door. Office nurses, in my experience, are inclined to be rather perfunctory at this duty, perhaps because they consider it a bit beneath their dignity. Personally I prefer a neat little maid in cap and apron, with a warm Irish smile of welcome, to the most stiffly starched nurse in the Registry. It is an ordeal in most cases for people to consult a doctor, and a friendly reception is important.

Notice the lighting arrangements, and the general effect produced by the furnishings of the waiting-room. Is it a hodge podge of odds and ends, somehow reminding you of a barber shop. Or is it gracious, dignified, friendly, homelike?

Is there an inviting array of new magazines

and comfortable chairs to lessen the tedium of waiting, and lull the trembling patient's fears?

Is there adequate ventilation? Often when entering a crowded waiting room I have staggered on the threshold and breathed through my mouth for a while till I could become accustomed to the close, fetid air.

In your house could a patient with a fairly well-developed olfactory sense predict what the family's next meal was to be? Do the ghosts of departed toast or soup or cabbage lurk furtively in the corners of your husband's waiting room?

It is even a good idea, once in a while, to visit friend husband, himself. Do it deliberately, critically, and with malice aforethought. Ring your own door-bell, sit in your own waiting room, put yourself in the place of your husband's patient. Even venture into the office in this new rôle, to criticize its appearance and the doctor's manner in receiving patients. You need not necessarily interrupt a busy office-hour to do this; patients might recognize you and fail to understand your reasons. But we wives have all developed an imagination; draw on the supply, if need be, for this experiment.

I hope you will find much that will strike chords of exultant satisfaction within your housewifely bosom. But I venture to predict that you will find also much that will help improve the service.

Perhaps I speak from a prejudiced or egotistic point of view when I say that unmarried physicians work under a handicap. But I am sure that every physician's wife who really takes an interest in her husband's profession will agree with me."

Atlantic County

The monthly meeting of the Woman's auxiliary to the Atlantic County Medical Society was held Friday evening, Nov. 8, at the Chalfonte hotel, Mrs. John T. Beckwith, the new President, outlined the work for the coming year, and Mrs. W. Blair Stewart gave a brief account of the national convention which was held in Portland, Oregon, during the month of June.

After the business meeting the usual social hour was enjoyed with cards.

Those present were: Mrs. John T. Beckwith, Mrs. Joseph Poland, Mrs. Lawrence A. Wilson, Mrs. Robert A. Bradley, Mrs. Daniel Reynor, Mrs. Sidney Rosenblatt, Mrs. Pauline North, Mrs. Charles Hyman, Mrs. Samuel Winn, Mrs. Bernard Crane, Mrs. Samuel F. Gorson, Mrs. James H. Mason, Mrs. W. Blair Stewart, Mrs. W. Price Davis and Mrs. Maurice Chesler.

Cape May County

Reported by Mrs. O. F. Zeigler.

The second annual meeting of the Woman's Auxiliary to Cape May County Medical Society was held at Ocean Golf Club Nov. 7, 1929, at 11 a. m. Meeting was called to order by President Mrs. Herschall Pettit and the usual routine business was in order. Election of officers resulted as follows: President, Mrs. Frank Hughes, Cape May; First Vice-President, Mrs. Allan Corson, Ocean City; Second Vice-President, Mrs. John Whiticor, Ocean City; Secretary, Mrs. Oscar Ziegler, Wildwood; Treasurer, Mrs. John Townsend, Ocean City. There was a discussion of a luncheon to be held in February to be announced later. Meeting adjourned to enjoy a delicious dinner and bridge or golf.

Essex County

Reported by Mrs. Theodor Teimer.

The Annual Meeting of the Woman's Auxiliary to the Essex County Medical Society was held at the Academy of Medicine, Monday, October 28. There were about 60 members present, several of whom had never attended any former meeting.

Mrs. H. Roy Van Ness, who represented the Essex County Auxiliary at the Annual Meeting in Atlantic City last June, read a very interesting report of that meeting.

Mrs. James Hunter, our State President, was introduced and addressed the members in a most enthusiastic manner.

The following officers were elected for the coming year: President, Mrs. H. Roy Van Ness; First Vice-President, Mrs. Linn Emerson; Second Vice-President, Mrs. Don A. Epler; Recording Secretary, Mrs. Theodor Teimer; Corresponding Secretary, Mrs. Francis Weber; Treasurer, Mrs. Charles Rich.

The new presiding officer was requested to take the chair, and appointed chairmen to head the newly formed committees, as follows: Publicity, Mrs. R. M. Rogers; Membership, Mrs. C. F. Rathgeber; Social, Mrs. J. H. Brothers; Health Education, Mrs. Don A. Epler; State Legislation, Mrs. Charles Schneider; Journal Committee, Mrs. S. H. Jessurun; Hygeia, Mrs. H. Comando.

After the business meeting, a social hour was spent, our social committee having acted as hostesses, and refreshments were served.

Gloucester County

Reported by Mrs. Henry B. Diverty

The annual meeting of the Woman's Auxiliary to the Gloucester County Medical Society was held at the Woodbury Country Club on Tuesday afternoon, October 29, at 2:30 o'clock, Mrs. James Hunter presiding.

Reports of the committees were heard.

Resolutions were drawn in memory of Mrs. Benjamin F. Buzby, who passed away on October 5.

Election of officers followed: President, Mrs. Elwood E. Downs, Woodbury; First Vice-President, Mrs. Chester I. Ulmer, Gibbstown; Second Vice-President, Mrs. Frank Fisler, Clayton; Secretary, Mrs. Harry L. Sickel, Woodbury; Treasurer, Mrs. David R. Brewer, Woodbury.

After adjournment, tea was served by the president.

In the course of her Presidential address, Mrs. Hunter said:

The long year, April 1928 to October 1929, draws to a close today, and it is time to make a résumé of the work of this new organization. Like all humans, we have done those things that we should not have done and we have left undone those things that we should have done. I will not accede to the remainder—"There is no health in us." The fact that we are conscious of our sins of omission as well as of commission proves conclusively that we are growing, and are endowed by living tissue so we can differentiate. As is the unfailing experience of all organizations the burden of work, perhaps I shall substitute "joy" of the work, has devolved on a few. Par-

ticipation is synonomous with enthusiasm and those who have helped are getting a slight glimpse of the reward.

The meetings, time and place, were set by the Executive Board at a round table luncheon last October. We simply were experimenting in an effort to please all and trying to get the co-operation of every eligible member. If harmony is the keynote of the auxiliary, then your executive board labored to accentuate that and that alone. Have we succeeded?

Those who attended regularly had brought to them many subjects about which to think—outstanding, pertinent subjects that should make us better helpmeets as well as members of the society. We have talked and thought about medical ethics, histories of hospitals, Hippocratic Oath—we have joined the medical society at its conferences, and one and all should have been benefited. We have had the opportunity of reading and digesting a half dozen books, to know which would widen our horizon. We have had the opportunity of mingling with the minds, scintillating and cultured, of the outstanding men in the medical profession, through the A. M. A. Journal which is conceded by all to be the finest medical journal in the United States. We have had opportunity for social contacts afforded by the medical society of this county. Have we availed all ourselves properly of these privileges?

Your president has made a most earnest effort to bring the work, as she saw it, undeveloped to be sure, to you all. When Mahommed refused to come to the mountain, she took the mountain to Mohammed, issuing 3 rosters, outlining the work, inviting all to work, and mailing these to each physician's home in the county. Your president is most grateful to those of you who stood loyally by; those who never said "No"; those who always said "I'll try and do my best".

May your new president carry on with the support and coöperation of every woman in every physician's home in Gloucester County, remembering that it is not her organization, nor mine, but ours. With this thought, I wish you Godspeed.

November Meeting

Mrs. James Hunter, Jr., Honored

A complimentary luncheon was given Mrs. James Hunter, Jr., of Westville, by the Woman's Auxiliary to the Gloucester County Medical Society at the Woodbury Country Club November 11, at 1 p. m., in recognition of her election as President of the Woman's Auxiliary to the State Medical Society of New Jersey.

Invited guests of honor were Mrs. Taneyhill, Field Secretary of the State Medical Society; Mrs. George L. Orton, Rahway, Ex-President of the State Auxiliary; Mrs. A. Haines Lippincott, Ex-State President of Woman's Auxiliary of New Jersey; Mrs. Ephraim R. Mulford, Burlington; Emma R. Richardson, M.D., Camden; Mrs.. William A. Wescott, Berlin; Mrs. William C. Raughley, Berlin.

Mrs. Elwood Downs, President of the County Auxiliary, acted as hostess and toastmaster, introducing the honored guests, who responded by short, spirited uplifting talks.

Mrs. Hunter responded by an inspiring address conducive to good fellowship and the betterment of the organization. As a final to the speechmaking, Mrs. Downs, on behalf of the County Auxiliary, presented "our state president" with a sumptuous bouquet as a token of appreciation of her work as our county president, whose term expired in October. A social hour followed.

Mrs. Buzby Dies Following Operation

Emma H. Buzby, wife of Dr. Benj. E. Buzby, Swedesboro, died Saturday night following an operation. The deceased was 71 years old. For several years she has resided in Swedesboro and the advancement of the community. She was always took a very active part in movements for one who won the love and admiration of those who knew her with kindly words and cheerful thoughts.

Funeral services were held from the home of her husband, 600 South Main street, at 11.30 a. m., Tuesday, with interment in West Laurel Hill Cementery, Philadelphia.

Besides a host of friends the deceased leaves a husband, two daughters, Mrs. George Groff and Mrs. John Riggins, and one son, Dr. B. Franklin Buzby, to mourn her loss.

Hudson County

Reported by Mrs. Joseph Binder

On November 15, the Woman's Auxiliary to the Hudson County Medical Society held its second meeting of the year.

Mrs. Samuel Cosgrove was appointed Chairman of the Program Committee, and Mrs. W. J. Duckett, Chairman of the Publicity Committee in lieu of Miss Ann Hetherington.

Our Annual Bridge Party is to be held at the January meeting, Mrs. Geo. Culver directing.

The business session was short, after which the members listened to a very illuminating and instructive talk entitled "Adventuring for Health", that was given by Miss Mabel Hannah, of the Metropolitan Life Insurance Company.

We are dispensing with a December meeting, for obvious reasons. Let us take this time to wish our sister auxiliaries a Merry Christmas and a Happy New Year.

Mercer County

Reported by Mrs. George N. J. Sommer

Election of officers was one of the features of the business meeting of the Woman's Auxiliary to the Mercer County Branch of the New Jersey Medical Society meeting, November 21, at the Stacy-Trent. Prior to the business session the members participated in a dinner in the roof garden of the hotel.

The officers named include: Mrs. John B. Sill, President; Mrs. D. Leo Haggerty, First Vice-President; Mrs. John H. McCullough, Second Vice-President; Mrs. E. F. Purcell, Secretary, and Mrs. L. Samuel Sica, Treasurer.

During the evening Mrs. James W. Hunter, Jr., of Westville, President of the State Society Auxiliary, spoke briefly, asking for coöperation from the local body and outlining the work being carried on throughout the state. She also urged the women to make pilgrimages to the various medical institutions and to foster the work of the New Jersey Medical Society, under direction of Mrs. Ethel Taneyhill, the Field Secretary.

Mrs. G. B. Tomkins and Mrs. L. A. Hamilton, of the Hunterdon County Branch, and Mrs. Lynden McDermid, of the Burlington County, were among the guests.

County Society Reports

ATLANTIC COUNTY

John S. Irvin, M.D., Reporter

The regular monthly meeting of the Atlantic County Medical Society was held in the Gold Room of the Hotel Chalfonte, Friday evening, November 8, at 8.30, Dr. Poland presiding. The minutes of the previous meeting were read and approved.

Dr. Stewart read a letter from the State Board of Medical Examiners, regarding Dr. Modica, who, it was stated, had been guilty of malpractice in the states of New Jersey and Delaware. Dr. Stewart also reported that the privilege of broadcasting over Station WPG had again been granted to the medical society, and that Dr. Reik, Secretary of the state society, wished to say a few words in this connection.

Dr. Reik stated that the privilege of broadcasting had been extended to the county and state medical societies jointly for another year beginning November 22. He asked for volunteers to speak on various medical subjects throughout the year.

Dr. Stewart stated that one of the oldest members of the society, Dr. J. Addison Joy, who is now living in Springfield, had recently suffered the loss of his wife. A motion was made and passed that the Secretary write a letter of sympathy from the society to Dr. Joy.

A motion was made and passed that the society extend an invitation to the American Medical Association to meet in Atlantic City in 1931.

The application of Dr. Clarence Whims was received and given to the Board of Censors for action.

A motion was made that the revised Constitution, a copy of which had been mailed to each member, be adopted by the society, with the suggestion that the committee be permitted to enter the names of all past presidents and the years in which they served the society. This motion was seconded.

Dr. McGivern stated that he thought the paragraph on the application for membership was too drastic; that there was no good reason for this; and that he was opposed to its adoption. Dr. Scott stated that he agreed with Dr. McGivern. Dr. Barbash replied that the Committee had discussed this matter at some length, and requested that the secretary read this portion of the amendment. Dr. Marcus complied with this request, reading as follows:

"Applications for membership from rejected candidates shall not be received within 1 year of such rejection. Any applicant who has been twice rejected shall not be considered eligible for membership for a period of 5 years from the date of his or her last application."

Dr. Barbash stated that the members of the committee felt that if a man's general conduct was such that his application was refused by the society, he should be given a year to think it over. He stated that he was in favor of this and that he would like to hear an expression from the rest of the society. Dr. McGivern said that he still did not see why 5 years were necessary. Dr. Martin stated that he agreed with Dr. McGivern. Dr. Stewart stated that the five year provision was discussed last year in Portland by the A. M. A. and that its ruling was that even though a man was rejected, if, after a time his application was presented to the A. M. A. and the man was in the right, they would accept him over and above the state or county society. He felt that the county society could with propriety leave off the latter part dealing with 5 year provision. Dr. Stewart then moved that the last sentence of Chapter 1, Section 2, which reads "Any applicant who has been twice rejected shall not be considered eligible for membership for a period of 5 years from the date of his or her last application" be struck out. This motion was seconded and passed.

A motion was made, seconded and passed, that the Constitution as amended be adopted by the Society.

Dr. Conaway reported for the Nominating Committee that the following men were nominated: President, Homer I. Silvers; Vice-President, Harold S. Davidson; Secretary and Treasurer, Joseph H. Marcus; Reporter and Historian, John S. Irvin; Board of Censors, Clarence Andrews, D. W. Scanlan and Charles B. Kaighn; Delegates for 3 years, W. Blair Stewart and William Edgar Darnall; for 2 years, Dewey, William J. Carrington and Samuel Barbash; for 1 year, Clarence L. Andrews, D. W. Scanlan and Joseph Poland; Nominating Committee for the state society, William Edgar Darnall. It was moved, seconded and passed that the nominations be closed. The officers as submitted by the Nominating Committee were unanimously elected.

Dr. Poland called upon Dr. Silvers for some remarks. Dr. Silvers replied, "It is with great pleasure that I accept this honor. To me it is particularly gratifying, having been born and educated in this city, to head the society for the coming year. Medicine does not stand still, and this society must continue to advance. I think we can this year carry forward as profitably and successfully as heretofore".

Dr. Davidson, in response to Dr. Poland's request, said that he had nothing to say except to thank the society.

The President then introduced the speaker of the evening, Dr. James Craig Small, Associate Professor of Bacteriology of the University of Pennsylvania, to speak on "Rheumatic Diseases".

"The subject of rheumatic fever and rheumatic diseases has a particular interest from a number of standpoints. In the first place it is a disease of wide distribution, a disease which contributes very widely to the prevalence of heart disease, which as you know ranks first among the killing diseases. From the economic standpoint it is of importance because of the amount of time lost from work by the patient's suffering from cardiac or joint diseases. In the last 4 or 5 years, based largely on economic causes in England, there has been an added stimulus to the study of these diseases.

I will not attempt to outline the different clinical manifesations of these diseases but I do want to differentiate between acute rheumatic fever and the large group of diseases which comes under the head of rheumatic diseases. With acute rheumatic fever you might group chorea, and put it down as being one and the same disease so far as etiology is concerned, manifesting itself in different symptoms. We made progress when we came to regard rheumatic fever as no longer a disease of the joints. We were inclined to refer to a case of rheumatic fever as a disease of the heart, and we no longer speak of the heart affections in rheumatic fever as complications of the disease. From the pathologic standpoint it is no longer correct to speak

of rheumatic fever as a disease of the heart but as a generalized disease, the lesions of which occur in every tissue of the body. From the pathologic standpoint rheumatic fever is a disease producing lesions in endothelial structures. The rationale of this sort of lesion immediately presents itself to you when you are reminded that the lesions in rheumatic fever occur in and about the blood vessels. I know that this is a broader conception of the disease than we have been accustomed to have. However, it is the conception which we must arrive at when we encounter lesions in rheumatic fever.

"Before I go ahead to show you the nature of this disease I want to say a word about these chronic affections which come under the head of arthritis. We frown down upon the term chronic rheumatism and yet we have spoken of it for many years and we have a specific condition which we must call rheumatic fever. This manifests itself in the heart and joints. In that improperly and poorly classified disease spoken of as nonsuppurative arthritis, we have a large variety of cases and we speak of these under the heads of atrophic or infectious arthritis, and hypertrophic arthritis, and certain mixed varieties. This group of diseases appears to relate its etiology to a group of microörganisms known as streptococci. In this group the relation of the streptococcus to the lesions of the disease is somewhat simpler than is the relation of the streptococcus to pure rheumatic fever type of disease.

There is nothing more important than to remember that rheumatic fever is a disease producing wide lesions. These lesions may be demonstrated throughout the vessels of the body. We should not divide the work into units but we should look upon the disease as a whole—as a constitutional disease. In rheumatic fever we have three types of lesions—proliferative, exudative, and destructive, which respond to salicylates. The administration of salicylates with acute rheumatic fever acts to reduce the joints, but we should not claim that it does in any way affect these lesions or that salicylate is a remedy. Since salicylate has been introduced the heart lesions are more prevalent than before, because the patient is more comfortable and gets up to move around before the heart can stand the strain.

When we come to the etiology of these lesions in any particular joint we must take into consideration that there are different types of lesions and that there is a distinct pathogenesis in rheumatic fever. I have recently offered an hypothesis as to how streptococcus may act in these lesions. It is that the destructive and proliferative lesions are due to a particular toxin from a particular strain of streptococcus; that the destructive lesions occur when the streptococcus is present in the body in abundance; that the stimulative effect of small dilutions of toxins is responsible for the growth of these cells.

The exudative type of lesion is based on an entirely different phenomenon. Something has occurred in the past to make the patient hypersensitive to certain types of streptococcus, just as in asthma patients are susceptible to certain types of pollen. Certain things occur in the patients which render them susceptible to the protein or nontoxic product of the streptococcus. We can take streptococci in cultures, wash them free of media, suspend them in salt solution and boil them, then filter out the bacteria and to that extract we find that the patient with rheumatic fever is unduly susceptible. We can dilute the extract and still get a reaction. We can explain this type of lesion only to this hypersensitiveness of the blood to streptococcus. The peculiar thing about it is that these productions may be extracts from any number of a variety of streptococcus or pneumococcus. We can take staphylococcus and do the same thing. Within that group of organisms of Gram positive cocci resides some highly complex protein to which patients are highly susceptible, and it is not confined to any particular species. This is the type that is responsible for the lesion which we think we can cure when we give a patient salicylates. Salicylates have cut down the susceptibility of patients to the proteins causing these diseases. At least it appears that we have some idea how salicylates act in rheumatic fever. It reduces the hypersensitization of patients to these extracts about which I have spoken.

We come now to the more important and practical considerations. What is the present accepted method of treating rheumatic fever? The progress made in the last decade has not been very great. We have brought out new drugs, but we use sodium salicylate more often in spite of this. Certain new drugs such as tolysin have found favor because they do not depress the heart. This is not treating the disease. Treatment is doing something to stop these lesions. On the basis of our hypothesis the treatment that I use is neutralization by antitoxic serum. Streptococcus cardio-arthritides serum is prepared in horses and cattle. The serum produced in horses has the disadvantage that many young individuals are sensitive to horse serum, for example, those who have been given diphtheria antitoxin.

In acute rheumatic fever in a child, when the patient is quiet in bed, he is given from 60 to 120 gr. sodium salicylate daily, the dose being given in split form. This is to prevent the irritation caused by larger doses. This is given before we think of serum. Next we give the patient antitoxin serum, and of the concentrated equine serum we give 5 c.c. per 100 lb. body weight or less. Of the unconcentrated serum the dose is 32 c.c. to 100 lb. body weight. This is given in split dosage. We give 40% of the total dose first and the remaining 60%, after an interval of 24 hours. It may occur that the total dosage is not enough and in that case it may be necessary to give more; another dose corresponding to the 60% dosage. Following the serum disease produced, which extends from 14 to 17 days after the first injection of serum, we begin an active treatment of the patient. We attempt during the period of protection to bring up his own active antibodies. The period of time for injections of antigen will be from 4 to 12 weeks depending on the condition of the heart, extent of the lesion, and the response of the patient. Three weeks after the patient has become afebrile he is allowed to get up gradually until he is able to recline in a chair for a period of several months.

We have a case of a patient 12 years of age who came in the third day of rheumatic fever, with a history of cold in the head, tonsillitis and symptoms in the joints, and had a full blown case of rheumatic fever—temperature 102-103°, pulse 80-100. There were at the apex no murmurs; there was a soft first sound which antedates the murmur of the mitral valve. She was given 50 c.c. of serum, unconcentrated, at this point, and there was no effect on the tempera-

ture except that it remained constant; the pulse was irregular. No salicylate was given, but another dose of serum, which proved to be sufficient amount. There was prompt response in pulse and temperature. The next day she went into a serum disease; she had acute lesions in both hips, elbows, knees, wrists and all joints. The effect of the serum the first day was nothing, but the second day the joints had cleared up and there was a return of the blood count to normal again. In the serum disease she had a temperature of 102° the third day and developed pain and stiffness in both maxillary joints and in both shoulders. This is a transient affair and passed off without treatment.

Another case of a patient in a second attack of rheumatic fever, the fifth day: had acute involvement of the right knee, developed a mild case with a temperature of 102°; was given 25 c.c. of horse serum. The knee subsided promptly; the temperature returned to normal.

Number 3 is a case of severe rheumatic fever with a white count of 21,000; was given 20 c.c. of serum and after 48 hours another 20 c.c.; the joints cleared up and the white count the fifth day was 8000.

Number 4 is a case of chorea treated as a control case with normal horse serum. A case of long standing, mild chorea, persistent for last 3 or 4 years in the spring and fall. There was a certain amount of deterioration in the mentality. Patient was given the horse serum; she immediately got a temperature, urticaria, and joint symptoms of serum disease. She was given another 50 c.c. of the same serum; she developed fever, vomiting, and more joint symptoms. This was the second attack of the serum disease. About 3 weeks after the primary injection she was given bovine serum, 50 c.c. She had no serum disease or disturbance. The chronic chorea entirely disappeared at the end of 8 or 9 days after the first dose of serum.

The essential factor in producing a clinical case of rheumatic fever is the allergic factor. The lesions in the joints are of an allergic nature and cause the patient much discomfort and this some time after the primary infection. This helps the doctor because he knows the diagnosis. The allergic lesion does not develop until the patient begins to develop some immunity toward the toxic factor. If the immunity develops, the patient develops an allergy to the protein factor so that on the basis of this you can develop rheumatic fever in the hypersensitive. In adults the toxic factor is not so high; the amount of free toxemia is less. We have more joint lesions in acute rheumatic fever in adults.

We pass now from rheumatic fever to arthritis. The factor at play in arthritis is not this low toxic factor because it is more than neutralized by the toxemia present, but we have a very high allergic factor develop. The disease becomes a disease of the joints rather than heart or blood vessels. One of the same streptococci might produce the toxemia. Chronic arthritis might develop from the joint disease of acute rheumatic fever. It bears a resemblance but it is more apparent than real. The treatment of acute rheumatic fever is to neutralize the toxin; in chronic arthritis it is to desensitize the patient. The doses used in chronic arthritis are represented here. The antigen is prepared by suspending a hundred million of germs in 1 c.c. of salt solution. After allowing this to stand in the icebox for several days, the bacteria are removed and the clean solution extracted is used, but not undiluted. It is diluted 100 million times. Two other dilutions are used—a 10 million and a 1 million.

The primary thing in the treatment of chronic arthritis remains to remove the focus harboring streptococci. Desensitizing treatment of this type cannot give the best results so long as there is a focus. I have made the analogy that it is just like trying to treat a hay fever patient in the midst of the pollen season. Remove the foci and then use the desensitization process. If you cannot find a focus, go ahead with the desensitization treatment."

Discussion

Dr. Scanlan: It was my pleasure to hear Dr. Small in New Orleans several years ago and it has been a pleasure to hear him again this evening. I think it is the first time I have heard a man who combined so ably the bacteriologist and the pathologist.

Dr. Small has gone over several phases of this subject, but 1 or 2 things he has said brought to my mind the thought that we men who try to be specialists become too enthusiastic about things, and start to push our patients full of things like this serum without first reading the directions carefully, as we were meant to do. We should not do this. We should treat the patient as intelligently as Dr. Small has outlined. I believe many of us see in our practice people who complain of conditions that really belong in this disease. Very often we are prone to blame it on one thing, as perhaps a murmuring heart. Dr. Small did not have time to go into this subject.

Several years ago I came to the conclusion that red meat is helpful to rheumatism; I see in the literature now that it is not harmful. It is important to remember that diet is important as well as serums, etc. The medical world has come to the conclusion that these rheumatic patients have got to have starch and sugar cut down for blood producing foods.

We do not have a large number of rheumatics to treat, consequently we cannot draw conclusions as Dr. Small can. I cannot say that I have produced results with serum, but I have used it often in these rheumatics. Last winter I had a nurse with acute rheumatic fever. When she left here, after receiving serum treatment, against orders, to return to her home in Canada, her pulse was normal and she was doing well, but she insisted on going home in the middle of February and the climate gave her a recurrent attack, and she died.

Dr. Barbash: I have listened to Dr. Small with a great deal of pleasure and I now know a great deal more than I did before. One question I would like him to take up. He mentioned removing foci of infection in chronic cases but did not mention removing foci of infection in acute cases. In a case of tonsillitis developing joint symptoms I removed the tonsils, causing immediate cessation of symptoms. In a case of sore throat with joint pains we used the serum with benefit; after the serum was stopped and the antigen begun, there was a recurrence of joint pains. I had the tonsils removed and symptoms disappeared but recurred. The child is very much improved but with a badly damaged heart.

Dr. Andrews: I have nothing but appreciation for having heard this masterful presentation of Dr. Small's paper. I think the greatest good I have derived from it is the fact that it seems that as we get into the scientific medium, diseases become generalized rather than specialized. I have

not had any great experience with the symptoms of these diseases, largely because I have not seen any of the acute cases except in the rather advanced stages. I think Dr. Small's is a contribution worthwhile, particularly for the clear cut way in which it was reported.

Dr. Stewart: I must add my appreciation of Dr. Small's paper. My only regret is that so many members of the society are not here tonight. These meetings that we have here are ones that no man can afford to miss.

Regarding the cases of these acute rheumatic infections, we in Atlantic City do not see as many as do people in other places; whether there is anything in our climate or whether people are more cautious in preventive measures, is a question. Be sure that the mechanism of the body is functioning properly and then these diseases will not be so likely to come. The treatment of acute cases varies according to the doctor handling the case. I have had very little experience with the serum. When we reach the chronic stage I believe that there comes one most important part of the treatment. In other words these patients get away too soon; they are allowed to do things and to think that they are perfectly well. Too many of these patients become chronic invalids for life. I wonder if the doctor finds special use in cases of convalesence for the iodides or operative lines?

Dr. Martin: I have enjoyed the evening immensely and think it is one of the best sessions we have had.

Dr. Wilson: I have met certain persons recently who have benefited by a drug called "causyth". I would like to ask Dr. Small what he knows about this drug.

Dr. Small: I am glad the question was brought up about removal of foci. It seems to me that the practice in the 2 diseases should be directly opposite to each other. I have a case which illustrates the damage of removal of foci in acute rheumatic fever. We get the ones who do not respond or who respond badly to such an operation as the removal of the tonsils. There is a great damage done in that procedure because in the operation upon tissue where we have Streptococcus viridans and other streptococci, when we cause a wound in the throat of a patient we expose him to a great danger of bacterial endocarditis. A young student graduating from college had acute rheumatic fever and had his tonsils removed 7 days afterward. His joint symptoms all came back, and at the present time he comes into the hospital with a temperature of 102° in the afternoon and subnormal in the morning. He had in his first attack of rheumatic fever bacterial endocarditis. We all know that the removal of tonsils does not prevent the recurrence of rheumatic fever. There is an indication for the removal of tonsils in rheumatic fever but it does not arrive until 2 or 3 months after the acute symptoms and the only indication is to remove the tonsils with the idea of lessening the chances of getting bacterial endocarditis. Organisms getting into the blood stream set up their deadly work and the removal of tonsils during the acute stage is dangerous. Removal 3 months after the acute stage is done with the idea of removing the Streptococcus viridans which are likely to get into the blood stream from the tonsils. I never remove tonsils in acute rheumatic fever. I always remove infected tonsils 2 or 3 months after the acute attacks have subsided.

In the removal of foci of infection in chronic arthritis, the sooner it is done the better. There is the danger of spreading through open tissue specific bacteria.

In regard to blood cultures in rheumatic fever, in over 300 cultures obtained, less than ½ of 1% has been positive, in the throats of these individuals we have found 85-90% positive; the organism is first in the upper respiratory tract.

In chorea the procedure for tonsils is the same as in acute rheumatic fever. We have a case of chronic chorea in which we can identify a heart lesion as having been present, and we removed the focus as soon as possible.

My attention was called to this drug "causyth" by an advertisement from Paris. I have not been able to find out what it is. I know some people who have used it, but none of them had good results. I do not know what it is.

I use iodids in pateints who are overweight, but I think we must draw the line between the underweight patient and the patient who is overweight. The arthritis of the menopause is treated by the use of thyroid and iodid. I believe such treatment is disastrous in the case of infectious arthritis. In regard to physical therapy, the fat, hypertrophic individual receives benefit from hydrotherapy, but the atrophic arthritic patient does not.

A rising vote of thanks was given Dr. Small, and the meeting then adjourned.

Atlantic City Hospital Staff Meeting

Joseph H. Marcus, M.D., Secretary

The regular monthly meeting was called to order at 8.30 p. m. by the President, Dr. C. Coulter Charlton. The minutes of the previous meeting were read and approved. The scientific program was presented by Drs. Samuel Salasin and Philip Marvel, Jr.

Dr. Marvel presented a classified statistical survey extending from May to July inclusive; a total of 189 cases. He deplored the attitude of many physicians as to lack of specific nomenclature in written diagnosis and recommended that no chart be accepted for final filing unless it contains the accepted terminology used by the College of Physicians and Surgeons. He expressed his appreciation to the various services for their coöperative attitudes.

Dr. Samuel Salasin presented a general survey of the Medical Service and also reported in brief a "case of fatal bacteriemia due to the pseudodysenteria bacillus of Kruse." This occurred in an adult colored female, 38 years of age, with chief complaint, generalized pains, especially over the lower portion of the sternum and exaggerated on deep respiration. Illness commenced 2 weeks prior to admission, when the patient complained of cramps in the stomach, belching and vomiting. The salient features on physical examination were as follows: Moist râles at both bases; blood pressure 168/118; temperature range from 99° to 103° F. The urine contained 340 mgm. % albumin, granular casts and large amounts of pus. Hemoglobin 60%; erythrocytes 3,370,000; white cells 19,450; neutrophiles 79%; lymphocytes 21%. Blood culture revealed pure growth of a Gram-negative bacillus.

Autopsy report by Dr. Kilduffe:

Thorax. There was no excess of pleural fluid. Both lungs showed a moderate degree of hypostatic congestion, and the left lung presented also a well marked and fairly extensive adhesive

pleuritis. On cross section no pathologic changes other than congestion. Pericardial sac contained about 100 c.c. clear serous fluid. Heart showed no signs of either dilatation or hypertrophy. Marked thickening of the aortic valve accompanied by some distortion and also some sclerotic changes in the mitral valve. Aorta was covered with atheromatous placques.

Abdomen: The omentum and mesentery were very fatty. Abdominal and pelvic viscera matted together by extensive adhesions formed one conglomerate mass that separated into individual parts with some little difficulty. Liver was enlarged, without nodular or other surface abnormalities, and on section appeared granular. Gallbladder normal. Splenic capsule was wrinkled and the spleen friable on section. Kidneys appeared larger than normal. On section the renal substance was markedly congested and there was pus in the pelvis. Except for adhesions due to peritonitis, there were no findings of interest in the intestines. The right ovary, right Fallopian tube, and appendix had been removed. The uterus was small and retroflexed.

Anatomic diagnosis: Chronic endocarditis (mitral and aortic), aortic atheroma; adhesive pleuritis; plastic peritonitis; subacute hepatitis; acute pyelonephritis; hypostatic pulmonary congestion; dorsal decubitus; bacteriemia.

Bacteriologic findings: The organism isolated from the blood stream twice during course of the disease, and at postmortem from the heart blood, spleen, kidney, and liver (all in pure culure), and from the contents of the intestinal canal (mixed culture with Bacillus coli) exhibited the following characteristics: A small motile, Gram-negative bacillus presenting finely granular, grayish, translucent colonies on plain agar, and almost colorless colonies on eosin-methylene-blue agar, after 48 hours showing a bluish central area. On agar slants, the growth was whitish and glistening. Russell tubes showed an acid butt, alkaline slant and a small amount of gas. In lead acetate agar, there was, occasionally, a small amount of gas and a constant brownish discoloration along the line of innoculation (stab). Gelatin was not liquified and indol not formed. Acetyl-methylarconbal was not formed. The methyl-red test was positive. In litmus milk there was a transient acidity in 24 hours, the reaction after 4 days being negative. Broth showed a uniform turbidity and a fairly heavy, grayish sediment. Sucrose, dulcite, and salicin were not attacked but acid and gas were formed in dextrose, lactose, maltose, mannite, xylene, and dextrin. Nitrates are not reduced. The organism was not agglutinated by typhoid, para A, para B, dysentery, or abortus sera. In accordance with the dicta laid down in Bergey's Manual of Determinative Bacteriology, it was identified as Escherichid pseudodysenteriae (Kruse). While this organism is usually without pathogenic importance it seems that it may invade the blood stream and produce a severe and fatal infection.

Dr. Philip Marvel presented a case of "brain tumor which embodied a symptomatic expression of spinal lues" and which had reacted well on specific therapy. The salient feature was that of dizziness, especially when sitting up, when the patient had a tendency to fall over in her bed. Patient became weaker and weaker, with ensuing death. Autopsy confirmed the diagnosis.

Dr. Samuel Barbash spoke of the value of "Diathermy in Relation to Diabetic Gangrene" and felt that even in advanced types, with the nondestruction of the blood vessels, with consistent treatment results very often are beneficial.

A general discussion followed relative to surgical intervention.

Dr. Robert A. Kilduffe presented the mortality report for September, with 30% autopsies.

Upon proper motion the meeting adjourned and the Major Staff convened shortly afterward.

BURLINGTON COUNTY

Roscius I. Downs, M.D., Reporter.

The one hundredth annual meeting of the Burlington County Medical Society was called at 1.30 p. m., Wednesday, November 13, 1929, at the Burlington County Hospital in Mt. Holly. There were 20 members and guests present with President Bauer in the chair. The guests included Dr. Andrew F. McBride, President of the Medical Society of New Jersey, and Dr. F. H. Corpening, of Marlton, N. J.

An application for membership, Dr. W. S. Sutherland, of Mt. Holly, was read and referred to the Board of Censors. The applications of Drs. R. Ernest Imhoff, of Moorestown, and Hammell P. Shipps, of Delanco, were passed by the Board of Censors and they were unanimously elected to membership.

The Nominating Committee, composed of Drs. Mulford, Darlington and Ulmer, presented the following list of officers who were duly elected to serve for the ensuing year: President, S. Emlen Stokes; Vice-President, Joseph Kuder; Secretary and Treasurer, George T. Tracy; Reporter, R. I. Downs; Censor, Nathan Thorne. Annual Delegates, M. W. Newcomb, George T. Tracy and R. I. Downs. Alternates, D. F. Remer, E. P. Darlington and Harry Rogers. The first nominee will serve on Nominating Committee and the second will be the alternate.

Welfare and Public Relation Committee: George T. Tracy, D. F. Remer, P. B. Reisinger, M. M. Shisler and M. W. Newcomb.

Delegates to the County Societies: Camden County, D. H. B. Ulmer and E. R. Imhoff; Atlantic County, Edgar Haines and Joseph Kuder; Cape May County, Nathan Thorne and Alexander Marcy; Gloucester County, E. W. Rodman and W. W. Zwick; Salem County, P. M. Scott and L. Hartman; Ocean County, John S. Conroy and J. H. Hornberger.

Committee for Revision of Constitution and By-Laws, R. D. Anderson, Chairman; George T. Tracy and E. R. Mulford; Chairman of Section on Medicine, E. R. Imhoff; Chairman of Section on Surgery, R. I. Downs; Chairman of Section on Obstetrics and Gynecology, F. D. Falrenbruch; Chairman of Section on Specialties, D. H. B. Ulmer.

The pr sident will have charge of the November meeting. The July meeting will be dispensed with. The Auditing Committee, composed of Drs. Remer and Rodman, reported the Treasurer's Report correct with a balance of $781.66.

We were pleased to have Dr. McBride with us, and he gave a very instructive talk. Ours was the twelfth county society meeting he has attended as President. Dr. McBride believes that we will be as successful in the legislature this year as in previous years, for we ask only to safeguard the public health, not by lowering the standards but by ever making members of the

profession better doctors. There should be a local "welfare" or "public relations" committee to not only work with the state Welfare Committee, but with the Woman's Auxiliary and with lay organizations for the betterment of "public" health. There is now a marked decrease of diphtheria throughout the state due to the previous antidiphtheria campaign. Some way should be arrived at, however, to get all pre-school children immunized.

Dr. McBride spoke of the medical extension course being prepared for members of the society. This is sponsored by Rutgers University, and details will be announced shortly in the Journal.

Secretary Tracy read the following plans for celebration of the centennial year of our society:

"The Committee appointed to arrange for the Centennial Celebration of the founding of our Society has decided on the following program:

The Celebration will be in the form of a dinner at the Community House, Moorestown, on Wednesday, November 20, at 6.30 p. m. This dinner will be followed by an address by Dr. Richard D. Anderson, of Burlington, on the "History of Medical Men in Burlington County".

There will then be an historical pageant participated in by 12 of our members, who will appear as the spirits of distinguished men of the past—the high-lights of medical history—dressed as nearly as possible in the costumes of the time, who will briefly tell of their contributions to medical science.

This will be followed by an address by the Hon. Harold B. Wells.

We plan to invite to this meeting as guests of the society some prominent citizens of the county, the wives or husbands of our members and the Board of Managers of the Burlington County Hospital. In addition, each member will have the privilege of inviting at his own expense 5 additional guests.

Very truly,
Joseph Stokes, Chairman,
M. W. Newcomb,
George T. Tracy.

A short report of the very interesting Annual Conference of County Society Secretaries and Reporters was made, with the plea that the members of the society read the report of the conference in the December issue of the state Journal. The motion of Dr. Pinneo was read and was voted the approval of the society. The motion was that the House of Delegates of the State Society be requested to create in the new Constitution and By-Laws, status for reporters, by providing that each county society be entitled to elect its reporter a member of the House of Delegates for the term of 1 year while reporter of his county society.

The secretary read his copy of the letter to the Welfare Committee of the state medical society, by Allen G. Ireland, M.D., Director of Physical and Health Education of Public Schools. Dr. Ireland stated his views in regard to public school program as follows: "Medical and surgical corrective measures are primarily responsibilities of the home. The school purposes are, first, to determine health needs of the pupils and to inform the parents of those needs and the best procedure for meeting them; and second, to educate the pupil for healthful living. The school is not concerned with establishing and operating clinics, dispensaries or infirmaries in opposition to the medical and dental professions or to such facilities already established in the community.

The exceptions to the above are, under acceptable conditions, as follows: (1) diphtheria prevention by means of immunization; (2) dental correction when the number and the practice of local dentists necessitate supplementary procedures; (3) special classes for crippled children, the impaired in vision or hearing, the malnourished and pretuberculous, the child with speech defects, and the mentally subnormal; (4) known indigents when corrective measurements for some reason will not or cannot be undertaken by the parents and when the defect is a decided handicap to the pupil's health and progress at school.

In view of this general policy, the school does not need to have on hand a large quantity or a great variety of drugs and supplies. It should, however, be prepared to meet general emergencies with first aid measures."

The society heartily agreed with the stand taken by Dr. Ireland and voted its endorsement.

A letter from the State Bureau of Venereal Disease Control, offering a demonstration clinic for a future program, was read and referred to the county hospital staff for attention.

Dr. Newcomb presented Dr. Craig's plan for the payment of medical and hospital bills. He said that this was the age of payment on the instalment plan. A business manager could draw up an agreement to pay for medical services by weekly or monthly payments. Several members felt that, from their experience, patients would not meet these obligations and much money would be lost.

Dr. Darlington spoke of the activity of the Pharmacy Board. He stated that they strictly upheld the rule that drugs could not be dispensed in general stores in rural communities. Dr. Darlington wished the medical society would oppose that law in respect to the more common and simpler remedies because of the inconvenience to the inhabitants.

Dr. Newcomb thought that the institutions of the county should each give a dinner-meeting once a year to the county medical society because of services rendered to these institutions by the individual members of the society. A committee, composed of Drs. Newcomb, Remer, Summey and Tracy, was appointed to work on this plan.

Dr. Harry Bauer read his Presidential Address, and because this year marks the Hundredth Anniversary of the society, took for his subject—"Progress in Medicine During the Past Hundred Years". It is exceedingly interesting and apropos and is to be sent to the Journal for Publication.

The meeting adjourned to convene in January at "Fairview", the tuberculosis sanatorium.

CAMDEN COUNTY

Robt. S. Gamon, M.D., Reporter

Regular meeting held November 12, 1929, at 9 p. m. in the Camden City Medical Building. The minutes of the last meeting were read and accepted. The program of the evening was headed by Dr. Martin H. Collier, Superintendent of the Camden County Hospital at Lakeland, who gave an excellent paper on "Artificial Pneumothorax Treatment of Pulmonary Tuberculosis". The paper was illustrated with lantern slides and case reports. Discussion was opened by Drs. Thos. K.

Lewis and I. E. Diebert. The second paper of the evening was given by Dr. Frank, Chief of Bureau of Statistics, Department of Institutions and Agencies, Trenton, N. J.

Two new committees were authorized; one on "Membership", and one on "Public Relations".

The Secretary was authorized to issue a program prior to each meeting, to be sent to every practicing physician in the county.

Three new members were elected: Edmund Hessert, Collingswood; Alexander Sohaki, Camden; and Eugene Stillman, Audubon, N. J.

Dr. Alfred E. Cramer, a Past-President of the Camden County Society, passed away October 14, 1929. He practiced ophthalmology in Camden for 26 years and was head of the Department of Ophthalmology in Cooper Hospital for 24 years.

Drs. Diverty and Hollingshead, of Gloucester County, were visitors at the meeting.

The annual meeting of Secretaries and Reporters, held in Trenton, November 6, 1929, was summarized by B. Franklin Buzby, Secretary of the Camden County Society.

CAPE MAY COUNTY.

Eugene Way, M.D., Reporter

The regular annual meeting of the Cape May County Medical Society was held on Thursday, November 7, 1929, at the Ocean City Golf Club, with 30 members and visitors in attendance; Dr. Petitt presiding. Among the distinguished guests was Dr. Andrew F. McBride, President of the Medical Society of New Jersey.

The Treasurer reported all debts paid and a balance of $39.85 on hand.

The Constitution and By-Laws offered by the State Society were adopted and the annual dues fixed at $18 per year.

The following officers were elected for the year 1930: President, Millard Cryder, Cape May Court House; Vice-President, Allen Corson, Ocean City; Secretary and Reporter, Eugene Way, Dennisville; Treasurer, H. H. Tomlin, Wildwood; Censor for 3 years, Charles M. Gandy. Delegates to State Society: for 1 year, A. C. Crowe; for 2 years, George F. Dandois; for 3 years, Clarence W. Way. Alternates: for 1 year, John B. Townsend; for 2 years, Oscar Ziegler; for 3 years, Herschel Petitt. Member of Nominating Committee of State Society, Clarence W. Way, Sea Isle City.

The place of next meeting was left to incoming president.

The president announced the recent death of Dr. Wilson A. Lake, and appointed the following committee to prepare an obituary report: Drs. Crowe, Darby and Townsend.

The Board of Censors reported favorably on the application of Clyde F. Smith, of Wildwood, for membership; he was elected by a unanimous vote.

The president then called on the District Councillor, Dr. Aldrich C. Crowe, who made a brief address, urging regular attendance at meetings and the holding of joint meetings with adjoining societies.

The president then introduced Dr. Andrew F. McBride, who gave a splendid address congratulating the society on its good showing, and stated that he had visited 10 county societies since June and that all show a healthy growth. He urged the society to make an effort to bring all the physicians in the county into membership. He told of the active work of the state society at the last meeting of the Legislature and that while all pernicious bills had been defeated it was necessary to keep up the fight. He also stressed the need of immunizing all the children in the state. Dr. McBride impressed the society most favorably and all expressed a desire to have him come again.

Dr. William A. Darnall, of Atlantic City, who has always been a favorite of the society, was called on and gave one of his pleasing talks, expressing his pleasure at being present and that he always felt at home in the Cape May County Medical Society. He approved heartily of all Dr. McBride said and urged that the fight against irregulars be kept up, not that it benefited us, for it does not, but for the cause of humanity.

Dr. Crowe stated that Colonel Charles M. Gandy, one of our past presidents, had this year completed 50 years of practice and offered his congratulations on the event. Dr. Gandy in well chosen words expressed his thanks, with the hope that he might remain with the society for many years to come.

Dr. Gandy graduated at Jefferson Medical College in 1879, spent 40 years in the United States Army, retiring in 1921. He saw service at army posts in various parts of the United States: 6 years in the Philippines as Chief of the Medical Department; Acting Surgeon General of the United States Army for 1½ years; and 5 years Professor of Military Hygiene at West Point.

He was a charter member of the Cape May County Medical Society and President of the society for the years 1923-24-25, the longest term of service ever given a president of the society. He is still active in the work of the society and is Chairman of the Board of Censors.

An address was given by Dr. C. H. deT. Shivers, of Atlantic City, on "Enlarged Prostate", illustrated by motion pictures which showed clearly the scientific work of the skilled operator and widely known surgeon. Dr. Shivers was given a hearty vote of thanks by the society.

Dr. H. L. Harley, of Atlantic City, gave an address on "Medical Ophthalmoscopy" that gave the latest findings, plans of examination, and treatment known on this all-important subject. His address was full of interest from start to finish and the doctor received a vote of thanks by the society.

ESSEX COUNTY

E. LeRoy Wood, Reporter

The Essex County Medical Society under the leadership of its President, Dr. Arthur W. Binham, is conducting a campaign for better obstetrics. Consequently, it was most appropriate that the speaker for the meeting Thursday evening, November 14, should be Dr. George W. Kosmak, of New York, Editor of the American Journal of Obstetrics and Gynecology, whose subject was "Sensible Standards for Proper Obstetric Care".

Dr. Bingham introducing the speaker said that the country's campaign for better obstetrics was suggested by the fact that frequent reference to the statistics showed a high maternal mortality figure in the United States. Essex County is not urging any new procedure, but is attempting to secure better coöperation from hospitals, nurses, physicians and each pregnant woman.

In the open discussion that followed Dr. Kosmak's paper (promised for later publication in

the Journal), Dr. John F. Hagerty said he wondered if our wonderfully equipped hospitals with their perfect facilities for every kind of instrumental and surgical assistance to labor, were not at times an invitation to interference that leads the doctor and patient into trouble; if greater patience and watchful waiting were exercised in the management of labor, mishaps might be less frequent and statistics better.

Dr. Price said he thought weight a valuable indication of the condition of the pregnant woman; sudden increase being very significant. He advised more frequent use of the obstetric consultant in complicated cases.

Dr. Kosmak, in closing, stated that a Committee of the Obstetric Society was developing a set of obstetric standards for hospitals. He is adverse to routine narcosis or anesthesia. He gives a cautious dose of morphin, gr. 1/8, and atropin gr. 1/200 to patients with a moderately but not fully dilated cervix. Darkening the room, sending out friends, putting cotton in the patient's ears, all help toward rest between pains.

The following new members were elected to to the society: Clifford Ashby, East Orange; Samuel Baum, Newark; Wallace R. Bostwick, Montclair; Charles H. Etheridge, East Orange; J. Finkel, Newark; William Landesman, Newark; Henry M. Norris, East Orange; Benjamin Polow, Newark; Eugene Robbins, Newark, and Richard F. Tomec, Montclair.

Dr. Arthur W. Bingham, president, has announced organization of the following committees of the Essex County Medical Society for the years of 1929-30.

Ex-Presidents—E. J. Ill, T. W. Harvey, W. S. Washington, A. Mercer, C. D. Bennett, W. P. Eagleton, H. J. F. Wallhauser, E. Z. Hawkes, J. F. Hagerty, Ed. Staehlin, T. W. Corwin, G. B. Philhower, H. S. Martland, F. R. Haussling, A. J. Mitchell, C. R. O'Crowley, E. G. Wherry, Sanford Ferris, Max Danzis and R. N. Connolly.

Medical Education and Hospital Activities—W. P. Eagleton, Chairman; J. F. Condon, F. R. Haussling, J. F. Hagerty, E. G. Wherry, Edgar Holden, E. Z. Hawkes, E. W. Sprague, Jean Wolfs, C. M. Robbins, R. D. Freeman, Max Danzis, W. H. Areson, A. C. Christian, A. E. Parsonnet, Philip Conlon, A. E. Thompson, R. E. Humphries, B. M. Harmon and E. L. Smith.

Member of Referees on Compensation Cases—D. A. Kraker.

Credentials—C. B. Griffiths, Chairman; H. R. Van Ness and J. H. Lowrey.

Special Fund—R. H. Rogers, Chairman; H. A. Tarbell and J. F. Hagerty.

Maternal Welfare Commission—A. R. Bianchi, President; Carl H. Ill, Vice-President; W. B. Mount, Secretary; N. G. Price, A. W. Bingham, H. B. Kessler, Theo. Teimer, D. L. McCormick, C. V. Craster, A. J. Mitchell, J. N. Pannullo and B. A. Furman.

Milk Commission—E. G. Wherry, Chairman; Floy McEwen, C. F. Lehlbach, A. R. Bianchi, T. W. Harvey, Jr., and R. N. Connolly.

Revision of Constitution and By-Laws—D. A. Kraker, Chairman; F. W. Pinney, A. Stahl and H. C. Barkhorn.

Illegal Practitioners—J. H. Lowrey, Chairman; R. N. Connolly and E. L. Wood.

Ethics—Max Danzis, Chairman; Sanford Ferris, R. N. Connolly, A. W. Bingham and H. C. Barkhorn.

Periodic Health Examinations—Chas. Englander, Chairman; C. R. O'Crowley, R. J. Mullin, C. V. Craster, T. W. Harvey, Jr; R. H. Staehle and I. E. Gluckman.

Diphtheria Prevention—R. N. Connolly, Chairman; E. G. Wherry and B. J. Smith.

Welfare—E. S. Sherman, Chairman; H. C. Barkhorn, J. F. Hagerty, J. B. Morrison and Linn Emerson.

Automobile Emblem—I. E. Gluckman.

Membership—Linn Emerson, Chairman; Wm. H. Glass, W. H. Areson, C. F. Rathgeber, H. H. Kessler and W. B. Mount.

Radio Broadcasting—D. A. Kraker, Chairman; E. W. Sprague and E. W. Erler.

Necrology—C. D. Bennett, Chairman; Floy McEwen and H. A. Tarbell.

Eye, Ear, Nose and Throat Section, Academy of Medicine of Northern New Jersey

E. LeRoy Wood, Secretary

"Chronic Paranasal Sinus Disease in the Experience of the Internist" was the subject of a paper read by Dr. Richard Kern, of Philadelphia, Assistant Professor of Medicine, and Louis A. Godey, Fellow in Clinical Medicine, University of Pennsylvania, and Assistant Editor of the American Journal of the Medical Sciences, at our regular meeting November 11, under the Chairman of the Section, Dr. Frederick J. Wort. (Dr. Kern's paper will be published in full in a later Journal).

Opening the discussion for the otolaryngologists, Dr. Wells P. Eagleton expressed great admiration for and thanks to Dr. Kern. He was glad to hear emphasis of the necessity for treating the patient as a whole, a sick man, who will not recover as well if attention is given only to one small localized portion of the body. We must cease regarding the nose, eye, or ear as if they belong to something outside of the body.

Dr. George H. Lathrope followed with discussion from an internist's view point, saying that importance of infections, of which the subject under discussion is a type, is very great. Chronic local infection is the common foe of good health and even life itself. The great danger from it lies in its insidious and unrecognized beginnings. Its progress is ambiguous and treacherous. It is well nigh the most dangerous malady with which we have to deal, producing as much disability and ultimate mortality as any other disease process; one of the greatest factors inducing premature senility. Because of the long chronic ill health which accompanies it, focal infection must be given high rank in the causes of human morbidity. What is sinus disease? (1) It may be purely local infection with purely local symptoms, and entirely local treatment. (2) It may be a primarily localized infection, but accompanied by symptoms referrable to other organs. When this situation confronts the internist he must decide if these accompanying symptoms are dependent on the sinus disease, directly or indirectly, or not at all. If in some way dependent, they are to be attributed to one or both of two effects: (a) Absorption of toxins from the focus in the sinus; (b) actual implantation of the bacterial infection in other tissues.

This would afford us a very simple classification of our sinus cases were it the whole story. Unfortunately it is not. There is another group which makes for confusion, and into this group fall those sinus cases with infection in other tissues—tonsils, teeth, gall-bladder—where the whole process is of such long standing that it is

not clear which focus of infection is primary, and which is clearly secondary or of less importance. The clinical failures of the focal infection theory belong largely to this group; clinical successes are chiefly in the second group.

A review of 82 cases of sinus disease from our own records brought out a few points of interest: (1) As to age: 73.5% were 31 or over; 49.3% aged 41 or more; 67.% between 31 and 60; which probably coincides with the general grouping of cases in office consultation practice. (2) Blood pressure readings showed only 37% with variation: SBP of 140 or over 24%; and SBP of 110 or under 13.4%. The series is too small to draw any conclusions. There is nothing striking in the way of hyper or hypotension.

(3) Almost without exception throughout the series congestion of the pharynx was noted on physical examination. For the internist or general practitioner this is a valuable sign and one always demanding an explanation. If there is no other adequate reason for it, sinus disease should be suspected.

(4) A complete blood count has positive value in 4 respects: (a) Anemia, if present, may be to some extent an index of the inroad the infection has made on the patient's physical economy. (b) Leukocytosis—9000 or over. (c) Polynuclear percentage of 71 or over. (d) Immature polynuclears in proportion of ½ or over. There were 75 complete counts in this series: W. B. C. of 9000 or over 74%; polynuclears 71% or over 53%; immature forms ½ or over 67%; showing all 3 of these changes, 19 or 25.3%; 2 of these changes, 34 or 45.3%; only 1 of these changes, 18 or 24%; none of these changes, 4 or 5.3%.

Following further discussion by Doctors Buvinger, Holmes, Emerson, Tymeson, Corwin, Conolly, and Zvaifler, the meeting adjourned.

GLOUCESTER COUNTY

Henry B. Diverty, M.D., Reporter

Officers of the Gloucester County Medical Society were elected at the annual meeting held November 23 at the Woodbury Country Club.

Dr. Duncan Campbell, of Woodbury, was elected President for 1930. The other officers are: Dr. W. W. Knight, Pitman, Vice-President; Dr. Ralph Hollinshed, Westville, Secretary and Treasurer, and Dr. H. B. Diverty, Woodbury, Reporter.

Delegates to the New Jersey State Medical Society are:

For three years—Dr. E. E. Downs, Woodbury; alternate, Dr. Wilson Stout, Wenonah.

For 2 years—Dr. William Brewer, Woodbury; alternate. Dr. C. I. Ulmer, Gibbstown.

For 1 year—Dr. B. A. Livingood, Swedesboro; alternate, Dr. Ashcroft, Mullica Hill.

Delegates to Cape May County Medical Society—Drs. Hunter, Westville; Diverty, Woodbury, and Wandell, Clayton. To Salem County—Drs. Ashcraft, Mullica Hill; Downs, Woodbury, and Stout, Wenonah. To Camden County—Drs Hunter, Westville; Hollinshed, Westville; Diverty, Woodbury, and Livingood, Swedesboro. To Atlantic County—Drs. Burkett, Pitman; Fooder, Williamstown, and Bowersox, Woodbury. To Cumberland County—Drs. Underwood, Woodbury; William Pedrick, Glassboro, and Ashcroft, Mullica Hill. To Burlington County—Drs. Campbell, Woodbury; Hunter, Westville, and Pegau, Woodbury.

For Nominating Committee of the State Medical Society—Dr. Hunter; alternate, Dr. Underwood. Trustees—3 years, Dr. William Brewer; 2 years, Dr. James Hunter; and 1 year, Dr. J. H. Underwood. Program Committee—Drs. Campbell, Hollinshed and H. B. Diverty.

The trustees were requested to revise the Gloucester County Medical Society Constitution to conform to the State Constitution.

The meetings for the coming year are to be held every month except June, July and August.

A motion was made that a committee investigate the feasibility of a county hospital, and report back to the society. Members of this committee are Drs. Hunter, Fooder and Downs.

Members present were Drs. Campbell, Hollinshed, Fooder, Downs, Hunter, Burkett, William Brewer, Stout, William Pedrick, Dr. Pedrick Sr., Underwood, Livingood, Wandell, H. B. Diverty.

HUDSON COUNTY

E. G. Waters, M.D., Reporter

At the meeting of the Hudson County Medical Society on Wednesday, November 6, 1929, Dr. Dandy, of Baltimore, Professor of Neurologic Surgery at Johns Hopkins Medical School, delivered a talk on "The Treatment of Various Pains by Neurologic Surgery".

Dr. Dandy stated that for 10 years surgeons were confronted with the problem of the cerebellopontine tumors which were not removable with success. In the region of these tumors there are 3 characteristic pains from 3 sets of nerves; First, from the fifth nerve the well known tic douloureux; second, meniere's disease from the eighth cranial nerve; third, glossopharyngeal tic from the ninth nerve.

Tic douloureux, or trigeminal neuralgia, is a diagnosis easily made from the patient's description of the type and distribution of the pain. There is no other pain like it, except possibly that of the ninth nerve. The cause is absolutely unknown, but it has been satisfactorily treated for years, and these cases have been numbered among the best results in neurologic surgery. In Dr. Dandy's clinic, a new treatment has been carried out for a number of years and has been so satisfactory that for the past few years it has been used to the exclusion of all others. The old Horsley-Krause operation was often followed by keratitis and frequently with later disastrous effects on the eye. The motor nerve was lost in many cases. While this is not serious, it is nevertheless an inconvenient complication since sensation also is completely lost. In about 7 to 8% injections of the nerves predominates in Europe, of cases, facial paralysis ensues, occasionally epilepsy from subdural hemorrhage, etc. Alcohol in an effort to overcome the operation complications. These injections require repetition, as they last only 8 to 18 months, and are often unsatisfactory. Alcohol injections of the Gasserian ganglion are often fatal, or followed by a terrible train of symptoms with permanent crippling; making this procedure one to be avoided. The alcohol breaks through the semicapsule into the cerebrospinal fluid of the posterior cranial fossa, bathing the delicate cranial nerves in an alcoholic solution. The new technic of operation used by Dr. Dandy consists in a unilateral cerebellar exposure. The cerebellum is raised with a spatula and the fifth nerve exposed. The sensory root is lifted with a hook

and partly divided. Formerly the entire nerve was divided, but now only a small bundle of the sensory fibers which contain all of the pain fibers, is sectioned. Nothing of sensation is lost except that of pain. The herpes following the usual operation, as well as the keratitis, is due to a traumatic neuritis through irritation of the trophic nerves in the ganglion. These never follow the operation just described. In over 150 cases, the motor nerve has not been injured. Bilateral tic occurs about once in a hundred cases. Division of the motor nerves would prevent swallowing. The new operation obviates such a danger, and both sides can be done at one sitting. The only contraindication is involvement of the Gasserian ganglion by carcinoma.

The douloureux of the ninth glossopharyngeal nerve is, if anything, even worse than the tic of the fifth. It is characterized by pain in the back of the throat near the tonsil. The tic is set off by food, water, or saliva, touching the "trigger zone" and patient holds the head so as to drain the saliva away from this zone. The condition is often confused with trigeminal neuralgia, and the patient is operated upon for the latter condition. The operation for this condition is similar to that for fifth nerve tic, the approach being the same, but it is simpler. There is loss of sensation of part of the tongue and half of the pharynx, but the patient is hardly conscious of the change. Division of the fifth and ninth sensory nerves often may be done to relieve, or rather remove, the agonizing pain which carcinoma of the back of the tongue and throat gives rise to.

Meniere's disease, involving the eighth nerve, is associated with a terrific, overwhelming dizziness with characteristic symptoms of unilateral subtotal deafness, tinnitus, nausea, and vomiting. Any movement of the head increases the symptoms, which last several hours and recur at varying intervals. Both the vestibular and cochlear divisions of the eighth nerve are involved. Since its description, in 1861, by Meniere, it had never been treated successfully, although, Charcot, in 1870, suggested that in the distant future some surgeon might cause complete deafness with cessation of symptoms by cutting the eighth nerve. The operation is simple. The same cerebellar approach is made, as above. The seventh nerve lies very close to the eighth and may be injured. Section of the eighth causes complete relief of symptoms without damage, since the patient is essentially deaf already, and vestibular coördination is regained on the other side within a few weeks.

Occasionally in operating for the above tics, tumors will be found to be the causative agents, as occurred in 2 of the last 150 operations.

Dr. Dandy briefly mentioned the work done by Spiller, of Philadelphia, who worked out the location of the pain tracks in the cord. In severe pains of the extremeties from pelvic cancer and spine tumors, cutting the anterolateral columns stops all the pain with little loss of anything else.

Concerning migraine, little is to be said, since there is no solution and the cause is unknown.

Headaches constitute the most prominent symptom of brain tumors. A sudden, new type of headache in a patient not accustomed to them is very significant. Frontal headaches come with internal hydrocephalus. Choked disc usually comes on quite late, so the diagnosis and localization should be made and treatment given long before this stage is reached. Marked late symptoms mean that the case has been almost hopelessly delayed. Localization of brain tumor early is now nearly an exact science.

"Silent area tumors" are now the most successfully removed of all brain tumors, due to the ease with which they are now located and the lack of involvement of vital structures. Infiltrating tumors and angiomas may be removed by completely taking away a zone of healthy tissue, if of the silent zone, without paralyses.

At the conclusion of this paper, Dr. Dandy showed a large number of descriptive anatomic and operative lantern slides, and many lantern slides of radiographs depicting the use of ventricular punctures and air injections for localization of brain lesions. Many questions and verbal consultations were indulged in at the conclusion of the paper.

Among the various items of business was the endorsement by the society of Dr. F. J. Quigley for the office of third Vice-President of the State Medical Society.

The nominations were made for the annual delegates who are to be elected at the January meeting.

MIDDLESEX COUNTY

Medical Section of Rutgers Club

J. H. Rowland, M.D., Reporter

The regular monthly meeting of the Rutgers Medical Club was held on Friday evening, November 15, at the Hotel Woodrow Wilson.

There being no business to transact, the meeting was called to order promptly by the Chairman, Dr. Schureman, who introduced the speaker of the evening, Dr. Herbert Fox, Director of the Pepper Laboratory of Clinical Research Medicine, of the University of Pennsylvania. His subject was "Clinical and Pathological Distinction in the Blood Lympathic-Gland Disease", and was illustrated with lantern slides. The address was enjoyed by all those present, numbering about 35.

After the meeting, the members, friends and guests retired to the main dining room as guests of Drs. Walker, Hoffman, Howley and Applegate, and a pleasing repast was served.

MONMOUTH COUNTY

Daniel Traverso, M.D., Reporter

The October meeting of the Monmouth County Medical Society was held on October 30, 1929, at the Berkeley-Carteret Hotel, Asbury Park, with Dr. J. E. Ackerman presiding.

A committee was appointed to work out plans to broadcast from Station WCAP papers on preventive medicine.

Drs. H. G. Thomas, of Asbury Park, and H. H. Friedman, of Freehold, were unanimously elected members of the society.

Dr. J. R. Weiner, of Asbury Park, addressed the society on "The Effects of Rheumatic Fever upon the Cardiovascular System", stressing the early finding of any changes in the vascular system; also electrocardiogram examinations.

Dr. C. A. Pons followed with a detailed discussion of the pathology found in this disease.

There were 35 members in attendance.

OCEAN COUNTY

George W. Lawrence, M.D., Reporter

The Ocean County Medical Society meeting was held October 30, at Murray's Log Cabin, Lakewood, at 6.30 p. m., President Theodore F. Thompson in the chair. Minutes of last meeting were read and approved. The Treasurer's report was also read and approved.

A general discussion was had in regard to raising dues. As the state society now collects $15 per year for each member in good standing, a motion was carried that the dues be increased to $25 per year with a fee of $10 from each new member for initiation.

The memorial engrossed on parchment to be presented to Mrs. Davis, in memory of her late husband and our very good friend Dr. H. H. Davis, was inspected and very favorably commented upon, and Dr. Towbin was given a vote of thanks for the capable manner in which he discharged his mission. Also, he was continued as the committee to have similar memorials made to present to the widows of Drs. E. C. Disbrow and Irving Hance, 2 of our oldest and most loyal members deceased since our last meeting.

The question of meetings of the woman's auxiliary was disposed of by recommending that the auxiliary meet on the same day as the county society and that the secretary of the county society send out notices of meetings at least 5 days before the date of meeting.

Inasmuch as a society for county secretaries and reporters has been formed, it seemed best to make these officers more permanent than the yearly basis and a motion was carried that the present secretary and reporter of the Ocean County Medical Society be continued until removed.

The following officers were then elected: President, Adolph Towbin; Vice-President, Blackwell Sawyer; Treasurer, Frank Brouwer; Secretary, Alfred Woodhouse; Reporter, George W. Lawrence; Delegates, E. G. Herbener and V. M. Disbrow; Alternates, T. F. Thompson and A. Goldstein.

No paper was prepared or read but motion was made that the newly elected President, Dr. Towbin, prepare and read a paper at the next meeting.

A very fine dinner was served and enjoyed. Meeting adjourned at 8 p. m.

PASSAIC COUNTY

Frank W. Ash, M.D., Reporter

In honor of their fellow member, Dr. Andrew F. McBride, recently elected to the presidency of the state medical society, 235 county physicians and their guests, attended the meeting of the county association November 14, in Kellerman's banquet hall. A scientific program followed the tribute to the doctor.

Dr. McBride was formally introduced to the assemblage by Dr. William A. Spickers, President of the County Society and presiding officer at the meeting. He said that those present had met to honor Dr. McBride both for his election to the highest office in the state medical profession and for his work in behalf of the society in the past. He referred briefly to the doctor's efforts as chairman of various committees, his help in securing favorable legislation and particularly the advantages which have accrued to all the members from Dr. McBride's tenure as Commissioner of Labor.

Obviously moved by the tribute paid him, Dr. McBride said that no honor has so filled him with pride as the one which has come to him most recently. He expressed his appreciation of the responsibilities of his high office and said that he would do all in his power to make his term a success. The doctor told the members that he has already visited 12 of the 21 county societies and that he hoped the interest shown at the meetings would continue.

Dr. McBride emphasized the struggle the welfare committee is making to have the public understand what the medical men are seeking, not for themselves but for the people with whom they come in contact. He said that the proper education of those who treat the sick, surgically and medically, is of vital importance to the general public, for, said he: "No one can have too much knowledge when trusted with the care of human life."

After thanking the members for the tribute they had paid him, the doctor closed his remarks with the hope that he would be able to aid them and the sincere appreciation of the honor which he has received.

The scientific program, the Treatment of Diabetes, was presented by two eminent Boston physicians. Dr. Howard F. Root, attending physician to the New England Deaconess and the Peter Bent Brigham hospitals, gave the medical side of the program, and Dr. Leland S. McKittrick, surgeon to the New England Deaconess and the Massachusetts General hospitals, presented the surgical. The members were enthusiastic in praise of the clear and complete presentation of the subject.

Following the meeting a collation was served and enjoyed by all.

SUSSEX COUNTY

F. H. Morrison, M.D., Reporter

Centennial Celebration

The centennial anniversary of the founding of the Sussex County Medical Society was celebrated at the St. Moritz Hotel, Pompton Lakes, October 22, 1929. There was an unusually large attendance. The guests of the evening included Dr. A. F. McBride, President of the Medical Society of New Jersey; Dr. John F. Hagerty, Vice-President; Dr. J. B. Morrison, Recording Secretary; Dr. Henry O. Reik, Executive Secretary and Editor; Dr. F. H. Todd, of Paterson. The wives of the members were also present.

Dr. F. H. Morrison read a paper on "The History of the Sussex County Medical Society", as compiled from the recorded minutes.

The History of Medicine in Sussex County

Frederick H. Morrison, M.D.,
Newton, N. J.

Although the first white men settled in New Jersey in 1623, we do not have any definite record of the medical profession in Sussex County until 1818. The early colonists regarded New Jersey as being very healthful. However, we do find reports of fevers and smallpox.

The first record we have of a medical society in Sussex County is dated July 20, 1818. At that time the meeting was held at Mrs. Bassetts'

Hotel, Newton. There was a meeting of this society held 8 months later but then all records of the organization disappeared. In 1823 there was a meeting called for the purpose of choosing delegates to attend the state medical society preparatory to the establishment of a district medical society for the county of Sussex, but whether the former society was re-organized, we cannot say; if it was, it must have died after a brief existence.

The first authentic record of our organization is dated August 23, 1829. I will read to you the minutes of our first meeting:

"Know all men by these presents, that the Medical Society of the State of New Jersey did at their annual meeting, convened at the City of New Brunswick, in the year of Our Lord, one thousand eight hundred and twenty-nine, nominate and appoint certain physicians residing in the county of Sussex to the number of 5, to wit: Samuel Fowler, David Hunt, Stephen Hedges, Elias L'Hommedieu and Seymour Halsey, to organize and establish a medical society for the better regulation and practice of physics within the said county of Sussex. Therefore, the physicians aforesaid, together with a number of others residing in the said county, met at Newton agreeably to previous notice on the twenty-second day of August in the year of Our Lord, one thousand eight hundred and twenty-nine, and did then and there pursuant to the authority vested in them, by the Medical Society of the State of New Jersey aforesaid, form themselves into a society to be known and distinguished by the name of the Sussex County District Medical Society in the State of New Jersey. After which it was unanimously resolved that officers be appointed to manage the concerns of said society, and to continue in office for 1 year or until others be appointed. Whereupon, the following officers were duly elected: President, Samuel Fowler; Vice-President, Stephen Hedges; Treasurer, Elias L'Hommedieu; Secretary, John B. Beach. Stephen Hedges, Samuel Marshal and Francis Moran were appointed a committee to draft a code of rules and regulations to be presented for consideration of the society at the next meeting."

The 6 original members you will notice, were either given an office or put on a committee. This idea may be of value to us today.

From the original "Rules and Regulations" it is interesting to note that: "As soon as the society shall be commenced and the names of the members called, the president shall open the society with a dissertation on some medical or philosophical subject or state some medical case."

"No person shall be admitted a member of the society unless he shall be a regular trained practitioner."

It is interesting to note that at each meeting the president shall give some member a medical subject on which he must be prepared to answer questions by the other members at the next meeting. However, there was a comeback to this rule as the member undergoing the examination could afterward ask the members how they would treat such a case.

The meeting in 1832 was held at the house of Dennis Cochran. A table of fees and rates of charging for sundry articles and services in medicine and surgery was established in 1831. I will quote a few as illustrations: "Each visit 25 to 50 cents. At night exclusive of medicine $1 to $2. In both instances when the distance exceeds 1 mile, mileage is to be charged at the rate of 12½ to 25 cents. Consultation fee $3.

Surgical fees. Phlebotomy 25 cents. Amputation of breast $20. Amputation of leg or thigh $20 to $30. Empyema $10. Extirpation of large cysts and cancerous tumors $15.

Midwifery. Delivery of natural case $3. Delivery forceps $10 to $20. Inoculation with virus pox 50 cents to $1. Fracture of arm or wrist $3 to $5.

Medicine. Elixirs per ounce 25 cents. Cathartic pills one dose 25 cents.

At this meeting it was decided that the vice-president, in the absence of the president, should be required to perform the duties of the president without exception. This solves our great problem, gentlemen. The matter of an annual address on some medical philosophical subject by the president or vice-president is mandatory in our constitution. It seems that the habit of the president being absent from meetings developed early in our history. Fines for nonattendance were common in the early history of the society.

In 1834 the vice-president made some remarks on the necessity of physicians attending more assiduously to the study of botany.

In 1836 there is a record empowering Dr. Beach to purchase a set of amputation instruments. In 1838 Dr. Beach delivered the first annual address. In 1844 a special meeting was held at the Cochran House for the purpose of examining candidates for license. Carlos Allen was admitted in 1848.

The records during the Civil War do not mention the activities of the medical men. However, there is evidence that Sussex County physicians took an active part in the war.

In 1866 there was a paper read on the subject of consultation. Apparently, the practice had not been popular but it was strongly urged that the men should take advantage of early consultations more frequently.

In 1867 the secretary was ordered to notify all members in the habit of undercharging rates of the society that they will be held accountable and liable to expulsion. In 1869 there was a report by Dr. Andrews on a case of "pregnancy complicated by ovarian tumor." In 1870 Dr. John Miller discussed a case of "traumatic tetanus" which was treated by quinin, opium, essence of beef and stimulants. In this same year it was resolved to increase the charge in ordinary obstetric cases from $6 to $7.

In 1872 there is record of an epidemic of typhoid fever in Deckertown. Drs. Ryerson, Allen, Havens and Andrew appear to have been particularly active at this time. Dr. J. B. Pellet, who is now the senior member of our society as regards length of membership, was elected to the society in 1872.

As late as 1875, in discussing treatment of pneumonia, "Dr. Miller expresses his firm belief that 'up here among the healthful mountains of Sussex we are too prone to accept the dogmas of the deservedly high authority of some of our city physicians" and to ignore, as they have done, the use of the lancet in the management of this disease.

In 1876 a special meeting was called to form a sanitary society in Sussex County to coöperate with the State Sanitary Commission. In 1877 there was a discussion on the identity of croup and diphtheria and the treatment by sulphur

fumigation. The meetings at this period were made interesting by pathologic specimens presented for discussion. Calculi appear to have been the favorite exhibits. In 1892 Dr. Straley spoke on the virtues of wild thyme as an efficient remedy in whooping cough, using the green leaves and branches in the form of an infusion.

On this one hundredth anniversary we are violating an old custom—that of holding our annual meeting outside of Newton. In 1892 after some discussion a motion was made to hold a semi-annual meeting at Deckertown.

In 1894 we have the first record of a paper on bacteria. At that time Dr. Ferguson delivered an interesting paper on this subject. In 1897 Dr. S. Voorhees discussed a local outbreak of typhoid fever in Newton. In this year it was suggested that Sussex, Warren and Morris counties unite to form a tricounty society. A motion was made and a committee appointed to meet a committee from Warren and Morris.

In 1904 the name of the society was changed from District Medical Society to "Sussex County Medical Society".

The period of 1890 to 1910 was very active. The members presented papers and the secretaries' minutes prove that the organization was most active. The first hospital founded in the county was at Franklin Furnace, 20 years ago. Following this, Alexander Linn Memorial Hospital was founded at Sussex. It is my pleasure to announce now that the Newton Hospital Association is engaged in preparing plans for a modern hospital for Sussex County at Newton.

To the best of my knowledge, I believe that my father, Dr. Ephraim Morrison, introduced knowledge of the Roentgen ray into Sussex County about 1905. I recall that when that 16-plate static machine started it fairly shook the house and the patients naturally believed God himself had let loose his mighty thunderbolts.

In 1864 the first drug store was opened in Sussex County by A. F. Fellows. It is recorded that he brought the first barrel of kerosene to Newton, having purchased it direct from John D. Rockefeller for $1.10 per gallon.

In reviewing these reports of the secretaries of the society I regret that copies of the presidential addresses could not be found. Our predecessors were literary, undoubtedly, but their papers have been lost. One cannot help but realize that the members in the past were hard working, diligent men, striving to aid humanity and at the same time uphold the true traditions of Hippocrates and Aesculapius.

Some historical relics were exhibited by members, and Dr. J. B. Morrison exhibited a magnetic vibrator which had been imported from France more than a century ago and which was probably the first of such electrical instruments used in this country.

Dr. McBride addressed the society. Drs. Todd, Hagerty and Reik were called on to speak, and the latter, incidentally, paid a glowing tribute to Dr. Blase Cole, of Newton, who as State Senator has rendered such excellent service to his state, his county and his profession.

The following officers were elected for the ensuing year: President, R. R. White; Vice-President, B. W. Roy; Secretary, F. P. Wilbur; Treasurer, Thomas Pooley; Reporter, F. H. Morrison; Censor, Dr. E. W. Landis; Delegates to state society, Drs. Wilbur, Coleman and Morrison.

This was one of the most interesting meetings in recent years. There is every evidence that the Sussex County Medical Society is becoming more active in its second century of life and promises to have a useful future.

UNION COUNTY

October Meeting

Summit Medical Society

W. J. Lamson, M.D., Reporter

The regular meeting of the Summit Medical Society was held at Wallace Pines on Tuesday, October 29, at 8.30 p. m., with the President, Dr. Meigh, in the chair, and Dr. Tidaback entertaining. Present: 24 members and 15 guests. Minutes were read and approved. Applications for membership were received from Drs. John L. Ely and A. E. Whitehouse, of Summit, and were ordered placed on file, as there are no vacancies at present.

The committee appointed to draw up resolutions on the death of Dr. David E. English, (Died Orlando, Fla., June 13, 1929), reported the following:

"In the death of Dr. David E. English, whose active life was spent in the communities of Millburn and Summit, the Summit Medical Society desires to record its appreciation of his sterling qualities and personal worth.

Thoroughly grounded in the science and art of medicine, he was a sound adviser and patient counsellor. Just in his judgments, he loved the truth and hated sham. In dealings with his fellow-practitioners he held to a high ethical plane, and in his professional contacts he gave of his best: and to many who really knew him he was the loyal and faithful friend.

A dominating trait of his character was kindliness. He was possessed of a mind senitive to the needs and aspirations, as well as the ills, of humanity; patient with their foibles; conscious of their limitations; and possessed, withal, of an understanding heart.

It has been a great privilege to have known and to have been associated with a man of his sterling worth; as a citizen and a physician we feel that he contributed something permanent to the work of this community as well as to this society, of which he was a Charter Member."

Miss Sykora, Visiting Nurse of the local Red Cross Chapter, addressed the society, gave an account of her work for the past year; 2707 visits have been made, of which 619 were free, although the usual fee, where the patient can afford it, is $1. The work covers medical, surgical and obstetrical visits, as well as follow-up cases and social service. She urged the physicians to make greater use of the opportunities offered to do such nursing.

The paper of the evening was read by Dr. Tidaback, on "The Value of X-rays as an Aid to Diagnosis".

He spoke of the increasing demand both by the public and in legal cases. Many obscure diseases, especially in the chest, can be diagnosed

by the help of the x-rays. He gave a brief summary of the most common conditions in which this diagnostic aid is of value, and illustrated his remarks by many excellent lantern slides.

The paper was greatly appreciated by all present, and was thoroughly discussed by Drs. Reitter, of Orange; Lathrope and Sutphen, of Morristown; and Baker, Bowels, Bensley, Molster and Meigh, of Summit. All advised greater coöperation between roentgenologist and physician or surgeon, in order that the clinical findings might be compared with the x-ray findings, and thus much greater knowledge of its value might be obtained.

November Meeting

W. J. Lamson, M.D., Secretary

The regular monthly meeting of the Summit Medical Society was held at Wallace Pines, Tuesday, November 26, 1929, with President Meigh in the Chair, and also the host of the evening; 25 members of the society, and 15 guests from Summit, Madison, Somerville, Bernardsville, Morristown and Newark were present. The minutes were read and approved.

The paper of the evening was read by Dr. Isadore S. Tunick, of New York, on "The Injection Treatment of Varicose Veins and Ulcers". Dr. Tunick briefly reviewed the etiology of varicose veins, in which heredity plays an important part. The treatment hitherto has been palliative or surgical. Within the last few years the injection treatment has been extensively used, both here and abroad, with striking results.

The solutons used are (1) 20-30% salt solution; (2) 30-40% sodium salicylate solution; (3) 75% invert sugar solution; and (4) quinin and uretane solution, the latter being suitable for only small veins. The action of all these is a sclerosing of the vein, causing obliteration No tourniquet is necessary, and the injection must be made directly into the vein, with no leakage outside, which will cause a troublesome sloughing of tissue.

There is no scar or disfigurement. The cases are ambulatory, and striking cures are quickly effected, which are permanent.

Contraindications are diabetes, pelvic tumors or inflammation, phlebitis, organic disease, etc.

Dr. George F. Dayton, of the Postgraduate Hospital, New York, said that with a proper technic, which should be thoroughly mastered before using this treatment, the danger of emboli is insignificant. The aseptic phlebitis caused by the injection is the natural reaction which effects the cure. It is important to study each case and make a differential diagnosis of the kind of veins or ulcers present, as only the plain varicosities are suitable for this treatment.

The paper was discussed by Drs. Bensley, Morris, Lawrence, Bowles, Meigh and Miller, and Dr. Hageman, of Somerville, and Dr. Wolfe, of Newark.

Clinical Society Elizabeth General Hospital

Michael Vinciguerra, M.D., Reporter

The regular monthly meeting of the Clinical Society of Elizabeth General Hospital was held on Tuesday evening, November 19, Dr. Michael Vinciguerra, the President, being in the chair.

The paper of the evening was by Dr. Horace R. Livengood, whose subject was "Some Clinical Observations on Cardiac Function". He called attention to the fact that physicians are constantly asked to give an opinion as to the condition of a patient's heart, with regard to its adequacy for athletic activities, business responsibilities, contemplated operations, etc., and that this makes it desirable that every physician should be acquainted with simple cardiac function tests which he can use either in his office or in the home of a patient. The technic which he has found to give accurate information requires no apparatus other than a sphygmomanometer and a stethoscope. It consists of 2 successive readings of the pulse and blood pressure (systolic and diastolic) with the patient in the prone position; the same observations with the patient standing; again after doing certain exercises; and at minute intervals thereafter. The exercises consist of the flexing of knees and hips 20 times, at the rate of 60 a minute, while in the standing position. Where the functional capacity of the heart is normal, there is a rise in both pulse rate and pressure on changing from the prone to the standing position and after exercise; failure of the pressure to rise after change of position or as a result of exertion, with unusual acceleration of the pulse, is an indication of myocardial weakness. The time required for this test is about 10 minutes; where one is pressed for time considerable information may be obtained by observing merely the pulse and pressure data on changing from the prone to the standing position.

The physicians on medical service for the current month presented cases as follows: "Undulant Fever", Dr. S. F. Wade; "Multiple Sclerosis", Dr. M. Vinciguerra; "Pituitary Tumor", Dr. M. Vinciguerra. Discussion was participated in by Drs. Banker, Bloch, Casilli, Goldfield, Griesemer, Livengood, Schlichter, Stern, Strickland, Vinciguerra, Wade, Wagner, Wilson and Yuckman.

At the close of the program, collation provided by the Woman's Auxiliary of the hospital was enjoyed.

WARREN COUNTY

F. A. Shimer, M.D., Reporter

The following resolutions upon the death of the late Dr. Lefferts have been prepared by a special committee:

Resolved: That the Warren County Medical Society records its profound respect for Dr. Franklin P. Lefferts, and its sense of great loss through his death.

He set an example of service and self-sacrifice which is inspiring.

The Medical Society extends to his widow and to the members of his family their deepest sympathy and join with them in mourning the loss not only of a splendid member of our Society but a most excellent citizen.

Resolved: That a copy of this resolution be sent to his family and spread on the minutes of this meeting.

Frank P. McKinstry, M.D.
Chas. B. Sweet, M.D.
Leon W. Hackett, M.D., Pres.
Committee.

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Andrew F. McBride.....Paterson
First Vice-President, George N. J. Sommer.....Trenton
Second Vice-President, John F. Hagerty.....Newark
Third Vice-President, Paul M. Mecray.....Camden
Corresponding Sec., William J. Carrington.....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Lucius F. Donohoe, *Chairman*.....Bayonne
James Hunter, Jr., *Secretary*.....Westville
Norton L. Wilson.....Elizabeth
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Paul M. Mecray.....Camden
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires,	1932
Second District	" "	1931
Third District	" "	1930
Fourth District	" "	1929
Fifth District	" "	1933

.....George H. Lathrope, Newark
.....B. S. Pollak, Secaucus
.....Martin W. Reddan, Trenton
.....George T. Tracy, Beverly
.....J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

Ralph K. Hollinshed, Westville	Term expires	1930
Lancelot Ely, Somerville	" "	1931
Henry C. Barkhorn, Newark	" "	1932

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City	Term expires	1932
J. Finley Bell, Englewood	" "	1932
Thomas B. Lee, Camden	" "	1930
Henry Spence, Jersey City	" "	1930
H. Garrett Miller, Millville	" "	1931
Harvey S. Brown, Freehold	" "	1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty	Term expires	1931
B. S. Pollak	" "	1931
W. Blair Stewart	" "	1930
E. R. Mulford	" "	1931

Alternate Delegates

George H. Sexsmith	Term expires	1931
Philip Marvel	" "	1930
S. B. English	" "	1930
C. B. Smith	" "	1931

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark	Term expires	1930
Edward J. Ill, Newark	" "	1931
J. Bennett Morrison, Newark		Ex-officio
Andrew F. McBride		Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*	Term expires	1933
Paul M. Mecray	" "	1934
John Nevin	" "	1931
B. S. Pollak	" "	1930
H. Garrett Miller	" "	1931
Thomas W. Harvey	" "	1932
Elias J. Marsh, *Treasurer*		Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton	Term expires	1931
William G. Schauffler, Princeton	" "	1932
William D. Olmstead, Atlantic City	" "	1930
Andrew F. McBride, Paterson		Ex-officio
J. Bennett Morrison, Newark		Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Foman.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield
Frank R. Haussling.....Newark

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
C. L. Ulmer.....Gibbstown
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
George F. Dandois.....Wildwood
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
George B. Emory.....Morristown
James S. Green.....Elizabeth
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
Thomas B. Lee.....Camden
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
Frank G. McCormack.....Englewood
B. C. McMahon.....Morristown
James P. Morrill.....Paterson
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
C. H. Schlichter.....Elizabeth
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark

GASTRON

The Entire Soluble Constituents of the fresh gastric mucosa, including the pyloric

The amino acids, colloidal proteins, known activated enzymes, associated nitrogenous extractives, organic and inorganic cell principles—these are all contained in Gastron.

GASTRON is an aqueous-acid-glycerin extract, 0.25% HCl.

It is significant of the degree in which Gastron represents a gastric-gland concentrate that 1 c.c. is capable of converting 200 grams of coagulated egg albumen under the official test; the high protein content is shown by the copious precipitate with strong alcohol, ammonium sulphate, etc.

GASTRON, the true stomach-gland extract, gland tissue juice of constantly increasing repute in symptoms and disturbances with attribution of gastric deficiency.

GASTRON is devoid of any trace of gland origin; it is agreeable and stomachic.

Makers of original products suggested by the progress of science in medicine.

Fairchild Bros. & Foster
New York

MOUNTAIN VALLEY WATER *from* HOT SPRINGS *Arkansas*

The Doctor's Preference for a Non-Irritating Diuretic

Mildly Alkaline -:- Natural -:- Pleasant Tasting

Mountain Valley can be consumed in quantity and relished. It is easily assimilated and a palatable agent for flushing all four of the emunctories.

Newark, N. J.
92 Central Ave.
MARket 8890

Mountain Valley Water Company
Distributing Branches in all Principal Cities

New York, N. Y.
142 E. 25th St.
GRAmercy 1666

Supplement to the Journal of the Medical Society of New Jersey, April, 1929

NEW YORK ACADEMY OF MEDICINE
APR 1 - 1929
LIBRARY

OFFICIAL LIST

OF THE

FELLOWS, OFFICERS, PERMANENT DELEGATES AND MEMBERS

OF

THE MEDICAL SOCIETY OF NEW JERSEY

FOR THE YEAR 1929

Prepared by J. Bennett Morrison, Secretary, assisted by the Secretaries and Treasurers of the County Societies.

This List has been very carefully compiled. References have been made to the lists submitted by the County Secretaries and Treasurers, the American Medical Association Directory, the State Directory. Where these have varied, letters have been written to the individual members in order to have names and addresses correct.

If any errors in spelling, in initials, or addresses are discovered, kindly communicate with the Secretary, so that errors may not be carried on from year to year.

FELLOWS.

All persons who shall have been, or may hereafter be Presidents of the Society shall rank as Fellows and be entitled to all the privileges of delegate members. Act of incorporation, Sec. 1.

The dates represent the year of election as President. Those marked thus (*) are deceased.

*Robert McKean 1766
*William Burnett 1767
*John Cochran 1768
*Nathaniel Scudder 1770
*Issac Smith 1771
*James Newell 1772
*Absalom Bainbridge 1773
*Thomas Wiggins 1174
*Hezekiah Stites 1775

* * * * * *

*John Beatty 1782
*Thomas Barber 1783
*Lawrence Van Derveer 1784
*Moses Bloomfield 1785
*William Burnett 1786
*Jonathan Elmer 1787
*James Stratton 1788
*Moses Scott 1789
*John Griffith 1790
*Lewis Dunham 1791
*Isaac Harris 1792

* * * * * *

*Elisha Newell 1795

* * * * * *

*Jonathan F. Morris 1807
*Peter I. Stryker 1808
*Lewis Morgan 1809
*Lewis Condict 1810
*Charles Simth 1811
*Matthias H. Williamson 1812
*Samuel Forman 1814
*John Van Cleve 1815
*Lewis Dunham 1816
*Peter I. Stryker 1817
*Jonh Van Cleve 1818
*Lewis Condict 1819
*James Lee 1820
*William G. Reynolds 1921
*Augustus R. Taylor 1822
*William B. Ewing 1823
*Peter I. Stryker 1824
*Gilbert S. Woodhull 1825
*William D. McKissack 1826
*Isaac Pierson 1827
*Jeptha B. Munn 1828
*John W. Craig 1829
*Augustus R. Taylor 1830
*Thomas Yarrow 1831
*Fitz Randolph Smith 1832
*William Forman 1833
*Samuel Hayes 1834
*Abraham P. Hagerman 1835
*Henry Van Derveer 1836
*Lyndon A. Smith 1837
*Benjamin H. Stratton 1838
*Jabez G. Goble 1839
*Thomas P. Stewart 1840
*Fred. S. Schenck 1841
*Zachariah Read 1842
*Abraham Skillman 1843
*George R. Chetwood 1844
*Robert S. Simth 1845
*Charles Hannah 1846
*Jacob T. B. Skillman 1847
*Samuel H. Pennington 1848
*Joseph Fithian 1849
*Elias J. Marsh 1850
*John H. Phillips 1851
*Othniel H. Taylor 1852
*Samuel Lilly 1853
*Alfred B. Dayton 1854
*James B. Coleman 1855

FELLOWS—Continued.

*Richard M. Cooper 1856
*Thomas Ryerson 1857
*Isaac P. Coleman 1858
*John R. Sickler 1859
*William Elmer 1860
*John Blane 1861
*John Woolverton 1862
*Theo. R. Varick 1863
*Ezra M. Hunt 1864
*Abraham Coles 1865
*Benjamin R. Bateman 1866
*John C. Johnson 1867
*Thomas J. Corson 1868
*William Pierson 1869
*Thomas F. Cullen 1870
*Charles Hasbrouck 1871
*Franklin Gauntt 1872
*Thomas J. Thomason 1873
*George H. Larison 1874
*William O'Gorman 1875
*John V. Schenck 1876
*Henry R. Baldwin 1877
*Jonh S. Cook 1878
*Alexander W. Rogers 1879
*Alexander N. Dougherty 1880
*Lewis W. Oakley 1881
*John W. Snowden 1882
*Stephen Wickes 1883
*Phanett C. Barker 1884
*Joseph Parrish 1885
*Charles J. Kipp 1886
*John W. Ward 1887
*H. Genet Taylor 1888
*Beniah A. Watson 1889
*James S. Green 1890
*Elias J. Marsh 1891
*George T. Welch 1892
*John G. Ryerson 1893
*Obadiah H. Sproul 1894
*William Elmer 1895
Thomas J. Smith 1896
*David C. English 1897
*Claudius R. P. Fisher 1898
*Luther M .Halsey 1899
*William Pierson 1900
*John D. McGill 1901
*Edmund L. B. Godfrey 1902
*Henry Mitchell 1903
*Walter B. Johnson 1904
*Henry W. Elmer 1905
Alexander Marcy, Jr. 1906
Edward J. Ill 1907
*David St. John 1908
*Benjamin A. Waddington 1909
*Thomas H. Mackenzie 1910
*Daniel Strock 1911
Norton L. Wilson 1912
*Enoch Hollingshead 1913
*Frank D. Gray 1914
*William J. Chandler 1915
Philip Marvel 1916
William G. Schauffler 1917
Thomas W. Harvey 1918
Gordon K. Dickinson 1919
*Philander A. Harris 1920
Henry B. Costill 1921
James Hunter, Jr. 1922
Wells P. Eagleton....1923
Archibald Mercer 1924
Lucius F. Donohoe....1925
James S. Green 1926
Walt P. Conaway 1927
Ephraim R. Mulford 1928

HONORARY MEMBERS.

*David Hosack, New York....1827
*John W. Francis, New York 1827
*John Condict, Orange, N. J. 1830
*Usher Parsons, Rhode Island 1839
*Reuben D. Murphy, Cincinnati 1839
*Alban G. Smith, New York 1839
*Willard Parker, New York 1842
*Valentine Mott, New York 1843
*Jonathan Knight, New Haven 1848
*Nathaniel Chapman, Philadelphia 1848
*John H. Stephens, New York 1848
*John C. Warren, Boston 1849
*Lewis C. Beck, New York 1850
*John C. Torrey, New York 1850
*George B. Wood, Philadelphia 1853
*Horace A. Buttolph, Short Hills, N. J...1854
*Ashbel Woodward, Franklin, Conn....1861
*Thomas W. Blatchford, Troy, N. Y....1866
*Jeremiah S. English, Manalapan, N.J...1867
*Stephen Wickes, Orange, N. J....1868
*Samuel Oakley, Vanderpool,Albany,N.Y.1872
*Joseph Parrish, Burlington, N. J....1872
*Ferris Jacobs, Lelhi, N. Y....1872
*Charles A. Lindsley, New Haven, Conn.1872
*William Pepper, Philadelphia 1876
*S. Weir Mitchell, Philadelphia 1876
*Cyrus F. Brackett, Princeton, N. J....1880
*Joseph C. Hutchinson, Brooklyn, N. Y..1880
*Thomas Addis Emmett, New York 1884
*Isaac E. Taylor, New York 1884
*D. Hayes Agnew, Philadelphia 1886
*Joseph Leidy, Philadelphia 1886
Frederick S. Dennis, New York 1893
*John H. Ripley, New York 1893
Virgil P. Gibney, New York 1893
*William Pierson, Orange, N. J. 1894
*Abraham Jacobi, New York 1896
*Virgil M. D. Marcy, Cape May City....1896
*Samuel H. Pennington, Newark, N. J...1897
Alfred A. Woodhull, Princeton, N. J....1897
J. Leonard Corning, New York 1902
*John Allen Wyeth, New York 1903
William K. Van Reypen, U.S.N. 1903
Lawrence F. Flick, Philadelphia, Pa....1903
S. Adolphus Knopf, New York 1906
Albert Vander Veer, Albany, N. Y....1907
Charles K. Mills, Philadelphia, Pa. 1917
Richard C. Cabot, Boston, Mass. 1917
George W. Crile, Cleveland, Ohio 1917
John B. Deaver, Philadelphia, Pa. 1917
*William J. Chandler, Lawtey, Florida...1923
Edward J. Ill, Newark, N. J....1925

THE MEDICAL SOCIETY OF NEW JERSEY

OFFICERS

President, Ephraim R. Mulford.....Burlington
First Vice-President, Andrew F. McBride.....Paterson
Second Vice-President, George N. J. Sommer.....Trenton
Third Vice-President, John F. Hagerty.....Newark
Corresponding Sec., William J. Carrington....Atlantic City
Recording Secretary, J. Bennett Morrison.....Newark
Treasurer, Elias J. Marsh.....Paterson

TRUSTEES

Norton L. Wilson, *Chairman*.....Elizabeth
James Hunter, Jr., *Secretary*.....Westville
Alexander Marcy, Jr.....Riverton
Thomas J. Smith.....Bridgeton
Edward J. Ill.....Newark
Philip Marvel.....Atlantic City
William G. Schauffler.....Princeton
Thomas W. Harvey.....Orange
Gordon K. Dickinson.....Jersey City
Henry B. Costill.....Trenton
Wells P. Eagleton.....Newark
Archibald Mercer.....Newark
Lucius F. Donohoe.....Bayonne
James S. Green.....Elizabeth
Walt P. Conaway.....Atlantic City
Ephraim R. Mulford.....Burlington
Andrew F. McBride.....Paterson
George N. J. Sommer.....Trenton
John F. Hagerty.....Newark
Elias J. Marsh.....Paterson
William J. Carrington.....Atlantic City
J. Bennett Morrison.....Newark

First District	Term expires, 1932	George H. Lathrope, Newark
Second District	" " 1931	B. S. Pollak, Secaucus
Third District	" " 1930	Martin W. Reddan, Trenton
Fourth District	" " 1929	Paul M. Mecray, Camden
Fifth District	" " 1933	J. Harris Underwood, Woodbury

COUNCILORS

First District (Union, Warren, Morris and Essex Counties).....Christopher C. Beling, Newark
Second District (Sussex, Bergen, Hudson and Passaic Counties).....Francis H. Todd, Paterson
Third District (Mercer, Middlesex, Somerset and Hunterdon Counties).....F. G. Scammell, Trenton
Fourth District (Camden, Burlington, Ocean and Monmouth Counties).....Marcus W. Newcomb, Brown's Mills
Fifth District (Cape May, Cumberland, Atlantic, Gloucester and Salem Counties).....Aldrich C. Crowe, Ocean City

Committee on Scientific Work

W. E. Darnall, Chairman	Term expires	1929
R. K. Hollinshed	" "	1930
Lancelot Ely	" "	1931

Committee on Public Hygiene and Sanitation

G. K. Dickinson, *Chm.*, Jersey City	Term expires	1929
J. Finley Bell, Englewood	" "	1929
Thomas B. Lee, Camden	" "	1930
Henry Spence, Jersey City	" "	1930
H. Garrett Miller, Millville	" "	1931
Harvey S. Brown, Freehold	" "	1931

Committee on Credentials

William J. Carrington, *Chm.*.....Atlantic City
Elias J. Marsh.....Paterson
Philip Marvel, Jr.....Atlantic City

Delegates to the American Medical Association

John F. Hagerty	Term expires	1929
B. S. Pollak	" "	1929
W. Blair Stewart	" "	1930

Alternate Delegates

George H. Sexsmith	Term expires	1929
Philip Marvel	" "	1930
S. B. English	" "	1930

Committee on Publication

Chas. D. Bennett, *Chm.*, Newark	Term expires	1930
Edward J. Ill, Newark	" "	1929
J. Bennett Morrison, Newark		Ex-officio
Ephraim R. Mulford, Burlington		Ex-officio

Committee on Finance and Budget

Harry R. North, *Chm.*	Term expires	1933
Paul M. Mecray	" "	1934
John Nevin	" "	1929
B. S. Pollak	" "	1930
H. Garrett Miller	" "	1931
Thomas W. Harvey	" "	1932
Elias J. Marsh, *Treasurer*		Ex-officio

Committee on Program and Arrangements

Martin W. Reddan, *Chm.*, Trenton	Term expires	1931
William G. Schauffler, Princeton	" "	1929
William D. Olmstead, Atlantic City	" "	1930
Ephraim R. Mulford, Burlington		Ex-officio
J. Bennett Morrison, Newark		Ex-officio

Committee on Honorary Membership

Thomas W. Harvey, *Chm.*.....Orange
George H. Sexsmith.....Bayonne
William G. Schauffler.....Princeton

Committee on Standardization of Hospitals

John C. McCoy, *Chm.*.....Paterson
Howard S. Forman.....Jersey City
David A. Kraker.....Newark
George N. J. Sommer.....Trenton
Thomas B. Lee.....Camden
William W. Brooke.....Bayonne
Harold D. Corbusier.....Plainfield

Committee on Business

Emanuel D. Newman, *Chm.*.....Newark
John Nevin.....Jersey City
W. Blair Stewart.....Atlantic City
Samuel B. English.....Glen Gardner
Emlen P. Darlington.....New Lisbon

Committee on Standardization of Disability in Traumatic and Occupational Diseases

Paul M. Mecray, *Chm.*.....Camden
Alfred Stahl.....Newark
Hugo Alexander.....Hoboken
Harry L. Rogers.....Riverton
Horace D. Bellis.....Trenton

Committee on Health, Accident, Life and Automobile Insurance

Frank W. Pinneo, *Chm.*.....Newark
J. Finley Bell.....Englewood
Austin H. Coleman.....Clinton
Fred J. Quigley.....Union City
James S. Green.....Elizabeth
Ralph K. Hollinshed.....Westville
Clarence W. Way.....Sea Isle City

Committee on Welfare

Henry C. Barkhorn.....Newark
Lawrence H. Bloom.....Phillipsburg
J. C. Clayton.....Freehold
A. H. Coleman.....Clinton
Joseph G. Coleman.....Hamburg
Walt P. Conaway.....Atlantic City
Samuel A. Cosgrove.....Jersey City
Henry B. Costill.....Trenton
Richard M. A. Davis.....Salem
Harold B. Disbrow.....Lakewood
Lucius F. Donohoe.....Bayonne
Lancelot Ely.....Somerville
Linn Emerson.....Orange
James S. Green.....Elizabeth
Edward Guion.....Northfield
John F. Hagerty.....Newark
D. Leo Haggerty.....Trenton
James Hunter, Jr.....Westville
Charles J. Larkey.....Bayonne
George H. Lathrope.....Morristown
A. Haines Lippincott.....Camden
Joseph F. Londrigan.....Hoboken
Andrew F. McBride.....Paterson
B. C. McMahon.....Morristown
J. Bennett Morrison.....Newark
Joseph R. Morrow.....Oradell
Ephraim R. Mulford.....Burlington
William E. Ramsey.....Perth Amboy
Daniel F. Remer.....Mt. Holly
John N. Ryan.....Passaic
William G. Schauffler.....Princeton
James P. Schureman.....New Brunswick
Millard F. Sewall.....Bridgeton
Elbert S. Sherman.....Newark
George T. Tracy.....Beverly
Clarence W. Way.....Sea Isle City

PERMANENT DELEGATES

Atlantic County

	Elected
W. Blair Stewart, Atlantic City	1900
W. Edgar Darnall, Atlantic City	1903
*Elisha C. Chew, Atlantic City	1905
Edward Guion, Atlantic City	1912
Edwin H. Harvey, Atlantic City	1915
William J. Carrington, Atlantic Ctiy	1921
Samuel Barbash, Atlantic City	1924
Theodore Senseman, Atlantic City	1924
David Berner, Atlantic City	1924
Clarence L. Andrews, Atlantic City	1928
Charles B. Kaighn, Atlantic City	1928

Bergen County

James W. Proctor, Englewood	1910
John E. Pratt, Dumont	1910
Frederick S. Hallett, Hackensack	1915
Joseph Payne, Midland Park	1919
Alva A. Swayze, Hackensack	1919
Alfred W. Ward, Demarest	1925
George L. Edwards, Bogota	1925
Samuel T. Hubbard, Hackensack	1925
Frank Freeland, Hackensack	1926
George H. Ward, Englewood	1926
J. Finley Bell	1926

Burlington County

George T. Tracy, Beverly	1915
Marcus W. Newcombe, Brown's Mill	1915
D. F. Remer, Mt. Holly	1924
Emlin P. Darlington, New Lisbon	1926

Camden County

*William H. Iszard, Camden	1899
Alexander MacAlister, Camden	1903
John F. Leavitt, Camden	1908
Henry H. Davis, Camden	1909
Howard F. Palm, Camden	1909
*William A. Westcott, Berlin	1915
A. Haines Lippincott, Camden	1919
Edward B. Rogers, Collingswood	1921
William B. Jennings, Haddonfield	1922
Thomas B. Lee, Camden	1922
Paul M. McCray, Camden	1922

Cape May County.

Randolph Marshall, Tuckahoe	1908
Clarence W. Way, Sea Island City	1926

Cumberland County

H. Garrett Miller, Millville	1915
*Walter P. Glendon, Bridgeton	1921
Charles M. Gray, Vineland	1924
John H. Moore, Bridgeton	1925
Alfred Cornwell, Bridgeton	1928

Essex County

*James T. Wrightson, Newark	1898
*Charles F. Underwood, Newark	1900
Charles D. Bennett, Newark	1900
William B. Graves, East Orange	1900
George B. Philhower, Nutley	1903
Theodore W. Corwin, Newark	1903
Edward Staehlin, Newark	1903
William Buerman, Newark	1910
Linn Emerson, Orange	1910
Henry J. F. Wallhauser, Newark	1912
John F. Hagerty, Newark	1912
William H. Hicks, Newark	1912
Elbert S. Sherman, Newark	1912
Walter S. Washington, Newark	1913
E. Zeh Hawkes, Newark	1914

Essex County—Continued.

John B. Morrison, Newark	1915
Christopher C. Beling, Newark	1915
*Ralph H. Hunt, East Orange	1915
John F. Condon, Newark	1915
Emanuel D. Newman, Newark	1915
*Eugene W. Murray, Newark	1915
Theodore Teimer, Newark	1917
Mefford Runyon, South Orange	1917
Frank W. Pinneo, Newark	1917
*Samuel E. Robertson, Newark	1919
Francis H. Haussling, Newark	1919
Elmer G. Wherry, Newark	1922
James H. Lowrey, Newark	1922
David A. Kraker, Newark	1922
Ambrose F. Dowd, Newark	1922
Edward W. Sprague, Newark	1922
Chauncey B. Griffiths, Newark	1922
Charles F. Baker, Newark	1922
Richard H. Dieffenbach, Newark	1922
Charles L. Ill, Newark	1922
Henry C. Barkhorn, Newark	1922
Joseph J. Smith, Newark	1922
Edwin Reissman, Newark	1922
Guy Payne, Overbrook	1922
George Blackburn, East Orange	1922
William O'G. Quimby, Newark	1924
Robert H. Rogers, Newark	1924
August J. Mitchell, Newark	1924
Alfred Stahl, Newark	1924
William Gauch, Newark	1924
Frank Devlin, Newark	1924
Richard D. Freeman, South Orange	1925
Paul H. Hosp, Newark	1925
Clarence R. O'Crowley, Newark	1925
H. Roy Van Ness, Newark	1925
Harrison S. Martland	1926
A. W. Bingham, East Orange	1927
H. B. Orton, Newark	1927
Ernest Gennell, Newark	1927
Harry A. Comando, Newark	1927
E. A. Snavely, Newark	1927
Edgar A. Ill, Newark	1928
Anthony C. Zehnder, Newark	1928
Leopold Szerlip, Newark	1928

Gloucester County

James H. Underwood, Woodbury	1920
S. H. Ashcraft, Mullica Hill	1924
William Brewer, Woodbury	1924

Hudson County

Joseph M. Rector, Jersey City	1900
George E. McLaughlin, Jersey City	1900
Talbot R. Chambers, Jersey City	1900
Henry H. Brinkerhoff, Jersey City	1910
Henry Spence, Jersey City	1910
Arthur P. Hasking, Jersey City	1911
Immanuel Pyle, Jersey City	1912
Charles H. Purdy, Jersey City	1912
George M. Culver, Jersey City	1912
Chas. H. Finke, Jersey City	1913
Henry J. Spaulding, Weehawken	1915
William L. Pyle, Jersey City	1916
John Nevin, Jersey City	1919
Stanley R. Woodruff, Bayonne	1919
George H. Sexsmith, Bayonne	1922
Samuel G. Cosgrove, Jersey City	1922
Fred J. Quigley, Town of Union	1922
Berth S. Pollak, Jersey City	1922
Oscar C. Frundt, Jersey City	1922
Charles B. Kelley, Jersey City	1922
William J. Sweeney, Town of Union	1922
Leo A. Koppel, Jersey City	1924

PERMANENT DELEGATES—Continued

Hudson County—Continued.

Joseph Koppel, Jersey City.....1924
H. J. Perlberg, Jersey City.....1924
Reeve L. Ballinger, Arlington.....1924
G. W. King, Laurel Hill 1924
H. T. von Deesten, Hoboken.....1924
G. V. Niemeyer, Union City.....1925
Wm. L. Yeaton, Hoboken.....1925
E. J. Lulppold, Weehawken.....1925
Charles J. Larkey, Bayonne.....1925
Joseph P. Londrigan, Hoboken 1926
Frank Bartone, Jersey City 1927
Donald Miner, Jersey City 1927
A. E. Jaffin, Jersey City 1927
William Freile, Jersey City 1928
Henry Klaus, Union City 1928
George Ginsberg, Hoboken 1928

Hunterdon County

Samuel B. English, Glen Gardner.....1924
L. G. Salmon, Lambertville.....1925
A. H. Coleman, Clinton 1927

Mercer County

Charles F. Adams, Trenton.....1900
Nelson B. Oliphant, Trenton.....1915
Henry A. Cotton, Trenton.....1917
Charles J. Craythorn, Trenton.....1920
William A. Clark, Trenton.....1922
George N. J. Sommer, Trenton.....1922
James J. McGuire, Trenton.....1922
William L. Wilbur, Hightown.....1925
David C. Ackley, Trenton.....1925
Martin W. Reddan, Trenton.....1925
Harry R. North, Trenton.....1925
Horrace D. Bellis, Trenton 1926
Leo Haggerty, Trenton 1928

Middlesex County

A. Clark Hunt, Metuchen.....1909
Edgar Carroll, Dayton.....1914
Arthur L. Smith, New Brunswick.....1915
Frank C. Henry, Perth Amboy.....1920
John G. Wilson, Perth Amboy 1927
J. B. Schureman, New Brunswick.....1927
Martin S. Meinzer, Perth Amboy 1928
George W. Fithian, Perth Amboy 1928
Howard C. Voorhees, New Brunswick ...1928
Benjamin Gutmann, New Brunswick ...1928

Monmouth County

Harry E. Shaw, Long Branch.....1915
Harry W. Ingling, Freehold.....1924
Harry B. Slocum, Long Branch.....1924
Clarence M. Trippe, Asbury Park.....1924
Geo. Van V. Warner, Red Bank.....1924
W. K. Campbell, Long Branch.....1924
Harvey S. Brown, Freehold.....1928

Morris County

Cuthbert Wigg, Boonton.....1899
Frederick W. Flagge, Rockaway.....1901

Morris County—Continued.

Alfred A. Lewis, Morristown.....1903
Henry W. Kice, Wharton.....1919
Leonidas A. Mial, Morristown.....1921
Clifford Mills, Morristown.....1923

Ocean County

Ralph R. Jones, Toms River.....1910
V. M. Disbrow, Lakewood 1924

Passaic County

Charles H. Scribner, Paterson.....1900
John T. Gillson, Paterson.....1900
Andrew F. McBride, Paterson.....1900
Frederick F. C. Demarest, Passaic.....1908
Francis H. Todd, Paterson 1910
Joseph V. Bergin, Paterson.....1911
Henry H. Lucas, Paterson.....1914
John C. McCoy, Paterson.....1915
John S. Yates, Paterson.....1916
George E. Tuers, Paterson.....1920
William Neer, Paterson.....1920
A. Ward Van Riper, Passaic.....1921
William Spickers, Paterson.....1922
Thomas A. Clay, Paterson.....1922
John N. Ryan, Passaic.....1924
Jacob Roemer, Paterson.....1924
Henry Cogan, Paterson.....1924
Henry H. Brevoort, Lodi 1926
Orville Hagen, Paterson 1928

Salem County

Richard M. A. Davis, Salem.....1923
David W. Green, Salem.....1924

Somerset County

Aaron L. Stilwell, Somerville.....1900
David Fairchild Weeks, Skillman.....1921
Lancelot Ely, Somerville.....1924
Runkin F. Hegeman, Somerville.....1924

Sussex County

Frederick P. Wilbur, Franklin Furnace..1912

Union County

Stephen T. Quinn, Elizabeth.....1911
Joseph B. Harrison, Westfield.....1915
Charles H. Schlichter, Elizabeth.....1920
Thomas P. Prout, Summit.....1922
Arthur Stern, Elizabeth.....1922
Horace L. Livengood, Elizabeth.....1923
Alvin R. Eaton, Elizabeth.....1924
William J. Lamson, Summit.....1924
Jacob Reiner, Elizabeth.....1925
P. Du Bois Bunting, Elizabeth 1926
George Banker, Elizabeth 1927
Milton A. Shangle, Elizabeth 1927
George Strickland, Roselle 1927
B. V. Hedges, Plainfield 1927
George Laird, Elizabeth 1927
John Runnels, Scotch Plains 1927

Warren County

G. Wyckoff Cummins, Belvidere.....1903
Louis C. Osmun, Hackettstown.....1919
Charles B. Smith, Washington.....1924

MEMBERSHIP OF COUNTY MEDICAL SOCIETY

Comprising the

MEDICAL SOCIETY OF NEW JERSEY

1929

ATLANTIC COUNTY. (1)

Society organized June 7, 1880. Meets second Friday of each month. Annual meeting in December.

President.

Poland, Joseph, Atlantic City

Vice-President.

Grier, Robert M., Pleasantville

Secretary and Treasurer.

Marcus, Joseph H., Atlantic City

Reporter.

Irvin, John S., Atlantic City

Censors.

Carrington, Wm. J., Atlantic City
Scanlan, D. Ward, Atlantic City
Andrews, Clarence L., Atlantic City

Allman, David B., 104 St. Chas. pl., Atlantic City
Axilrod, M. H., 2620 Pacific av., Atlantic City
Andrews, Clarence L., 101 S. Indiana av., Atl. City
Barbash, Samuel, 1902 Pacific av., Atlantic City
Bartlett, Clara K., 4301 Atlantic av., Atlantic City
Bassett, N. H., 117 S. Illinois av., Atlantic City
Bates, Chas. A., 919 S. Shore rd., Pleasantville
Bateman, Sydney, 10 S. Morris av., Atlantic City
Beckwith, J. T., 33 S. Indiana av., Atlantic City
Beir, I. R., Haverford Apts., Atlantic City
Berner, David, 2817 Pacific av., Atlantic City
Bewley, L. H., 1209 Pacific av., Atlantic City
Bossert, Chas. L., 707 Pacific av., Atlantic City
Boysen, Theophilus, Egg Harbor
Bradley, Robt. A., 101 So. Ind. av., Atlantic City
Brown, J. C., 101 So. Indiana av., Atlantic City
Burrows, G. C., 7804 Ventnor av., Margate, Atl. C.
Carrington, William J., 905 Pac. av., Atlantic City
Charlton, C. C., 124 S. Illinois av., Atlantic City
Chesler, Maurice, Conn. & Pac. avs., Atlantic City
Clark, S. Worth, 152 S. N. Carolina av., Atl. City
Conaway, Walt P., 1723 Pacific av., Atlantic City
Coward, Edwin H., 1423 Pacific av., Atlantic City
Corson, Filbert R., 3529 Pacific av., Atlantic City
Crane, Bernard, 306 Pacific av., Atlantic City
Cuskaden, A. D., 5902 Ventnor av., Ventnor City
Dalton, S. Eugene, 124 S. Illinois av., Atlantic City
Darnall, Wm. Edgar, P.O. Box 1126, Atlantic City
Davidson, H. S., Professional Arts Bldg., Atl. City
Davis, W. Price, Professional Arts Bldg., Atl. City
Davis, Byron G., 1500 Pac. av., Atlantic City
Dunlap, Thos. G., 47 S. Virginia av., Atlantic City
Durham, Royal E., Manheim Apts., Atlantic City
Ewens, Arthur E., 3600 Pacific av., Atlantic City
Fischer, John S., 20 S. Jackson av., Atlantic City
Fish, Clyde M., Washington av., Pleasantville
Fox, William W., 101 S. Indiana av., Atlantic City
Frank, Myrtile G., P.O. Box 62, Egg Harbor
Garrabrant, Clarence, 19 N. Penn av., Atl. City
Gehring, Gus P., 2439 F st., San Diego, California
Gorson, Samuel F., 2005 Pacific av., Atlantic City
Grier, Robert M., P.O. Box 424, Pleasantville
Guion, Edward, Northfield Asylum, Northfield
Haley, Mark J., 3 N. Granville av., Margate City
Harley, H. L., 1714 Pacific av., Atlantic City
Harvey, Edwin H., 20 N. Florida av., Atlantic City
Hellebranth, R. T., 104 S. Frankfort av., Atl. City
Holt, E. Z., Children's Seashore Home, Atl. City
Hudson, W. J., P. O. Box 343, Pleasantville
Hyman, Charles, Professional Arts Bldg., Atl. City
Ireland, Milton S., 23 S. California av., Atl. City
Irvin, John S., 1910 Pacific av., Atlantic City
James, Henry Carroll, May's Landing
Johnson, Earl V., 3200 Pacific av., Atlantic City
Kaighn, Chas. B., 905 Pacific av., Atlantic City
Kilduffe, Robert A., 104 S. Roosevelt pl., Atl. City
Kremens, Maxwell B., 109 States av., Atlantic City
Lawrence, Henry R., 25 S. Illinois av., Atl. City
Leonard, Isaac E., 2842 Atlantic av., Atlantic City
Madden, Leland Sanford, Pleasantville
Mackler, Louis, 16 S. Maryland av., Atlantic City
Marcus, Joseph H., 101 S. Newton av., Atl. City
Marshall, Jos., C., 1517 Pacific av., Atlantic City
Martin, William, 117 S. Illinois av., Atlantic City
Marvel, Philip, 101 S. Indiana av., Atlantic City
Marvel, Philip, Jr., 101 S. Ind. av., Atlantic City
Mason, Jas H., 3d, Ind. & Pac. avs., Atlantic City
Massey, John F., 20 S. Newport av., Ventnor
McGeehan, S. M., Ryanhurst Apts., Atlantic City
McGivern, Chas. S., 101 S. Ind. av., Atlantic City
McVey, James C., 2907 Pacific av., Atlantic City
Miller, D. J. M., Calif. & Pacific avs., Atlantic City
Mullerschoen, G. J., Professional Arts Bldg., Atl. C.
Olmstead, W. D., 1920 Pacific av., Atlantic City
Pennington, John, 101 S. Indiana av., Atlantic City
Pennington, Geo. P., 12 S. Chelsea av., Atl. City
Pilkington, Albert, Amst'dam Apts., Atlantic City
Poland, Geo. A., 26 E. Wash'ton av., Pleasantville
Poland, Joseph, 1904 Pacific av., Atlantic City
Quinn, Norman J., 3303 Pacific av., Atlantic City
Reed, Hilton S., 101 S. Indiana av., Atlantic City
Reyner, Daniel C., 2703 Pacific av., Atlantic City
Reynolds, Walter, 27 S. Indiana av., Atlantic City
Rosenblatt, Sidney, 1920 Pac. av., Atlantic City
Salasin, Samuel, 511 Pacific av., Atlantic City
Scanlan, David Ward, 15 S. Illinois av., Atl. City
Scott, George, 9 S. Penn. av., Atlantic City
Scott, Karl M., 101 S. Indiana av., Atlantic City
Senseman, Theo., 3600 Pacific av., Atlantic City
Shenfeld, Isaac, 501 Pacific av., Atlantic City
Shimer, A. Burton, 606 Pacific av., Atlantic City
Shivers, Chas, H., Sr., 121 S. Ill. av., Atlantic City
Shivers, C. H. de T., 121 S. Ill. av., Atlantic City
Sinkinson, Chas. D., Jr., Prof. Arts Bldg., Atl. City
Silvers, Homer I., 16 S. Suffolk av., Atlantic City
Smith, Andrew M., Egg Harbor
Souder, Louis R., 5 S. Victoria av., Ventnor City
Spencer, Geo. F., 101 S. Indiana av., Atlantic City
Stalberg, Samuel, 1109 Pacific av., Atlantic City
Stern, Samuel, 2815 Pacific av., Atlantic City
Stewart, W. Blair, N. Car. & Pac. avs., Atl. City
Stewart, Walter B., 8 N. Tallahassee av., Ventnor
Subin, Harry, 1904 Pacific av., Atlantic City
Surran, Carl A., Prof. Arts Bldg., Atlantic City
Taggert, Thos. D., 25 S. Indiana av., Atlantic City
Torrey, Eugene, 1500 Pacific av., Atlantic City

ATLANTIC COUNTY.—Continued.

Townsend, Mary E., Box 703, Atlantic City
Uzzell, Edward F., 2703 Pacific av., Atlantic City
Walker, L. M., 1329 Pacific av., Atlantic City
Westcoat, A. S., 615 Pacific av., Atlantic City
Westcott, Wm. C., Del. & Pac. avs., Atlantic City
Westney, Alfred W., 3005 Pac. av., Atlantic City
Winn, Samuel L., 1902 Pacific av., Atlantic City
Wright, Elizabeth T., 52 Oak av., Metuchen

Associate Members.

Barab, Barney B., D. D. S., Atlantic City
Fitzsimons, O. L., 36 S. Penna av., Atlantic City
Mally, Manuel J., D. D. S., Atlantic City
Singer, Dudley G., Ph. D.
Steigerwald, Clarence S., Jackson av., Ventnor

Honorary Members.

Joy, J. Addison, E. Hampton, Mass.

Resigned.

Roop, William O.

Number of members and basis of representation, 114.

BERGEN COUNTY. (2)

Society organized February 28, 1854. Meets second Tuesday in each month. Annual meeting second Tuesday in January.

President.

Levitas, George M., Westwood

Vice-President.

Clarke, Edward W., West Englewood

Secretary.

Snedecor, Spencer T., Hackensack

Treasurer.

Sarla, M., Hackensack

Reporter.

Littwin, Charles, Palisade

Censors

The President, Secretary and Treasurer

Adams, Flora, Hackensack
Alexander, Samuel, Park Ridge
Appold, George D., Bergenfield
Armstrong, Samuel E., Rutherford
Barnes, William J., Englewood
Bell, J. Finley, Englewood
Beyers, C. W., Rutherford
Bickner, A. W., Jr., Rutherford
Black, LeRoy, Rutherford
Bleasby, Charles, Garfield
Bregman, Alexander, Edgewater
*Brundage, Philip E., Cresskill
Buckley, Charles F., Edgewater
Busicco, P. S., Englewood
Caldroney, Thomas L., Ridgefield Park
Calhoun, Charles, Rutherford
Clarke, Edward W., West Englewood
Cochrane, Cleland D., Closter
Cone, Ralph S., Westwood
Conner, Thomas F., Bogota
Connor, Clarence A., Fort Lee
Conover, E. E., Hasbrouck Heights
Conrad, Edward K., Hackensack
Cooper, Howard M., Rutherford
Corn, David, Ridgefield Park
Crandall, John K., Fort Lee
Cropsey, Charles D., Rutherford
Curtis, Donald, Hackensack
D'Agostin, Henry, Cliffside
Dayton, S. T., Englewood
Denig, Ralph D., Hackensack
Dickson, John D., Bogota
Dilger, F. G., Cliffside
Edwards, George L., Bogota
Edwards, James B., Leonia
Essertier, Edward P., Hackensack
Farmer, Vincent, Hackensack
Fessler, William, Grantwood
Fielding, William M., Allendale
Finke, George W., Hackensack
Finke, John H. D., Hackensack
Fisher, Percy C., Ridgewood
Fox, James W., Hillsdale
Freeland, Frank, Hackensack
Frobisher, Hamilton B., Teaneck
Garrett, Harry S., Park Ridge
Gilady, Ralph, Hackensack
Gillett, H. E., Ramsey
Gnasso, E. R., Fort Lee
Goldberg, David, Westwood
Greenberg, Lewis, Lodi
Greenfield, A. W., Hackensack
Grimes, Jesse R., Dumont
Groof, P. A., Little Ferry
Hallet, Frederick S., Hackensack
Halperin, H., Englewood
Harney, J. Norman, Teaneck
Helff, J. R., Teaneck
Hitzmann, L. A., Maywood
Horowitz, H. J., Morsemere
Hubbard, Samuel T., Hackensack
Huff, Edmund N., Englewood
Irwin, J. H., Englewood
James, W. L., Englewood
Jukofsky, I. D., Ridgefield Park
Keir, Floyd E., Englewood
Kenyon, H. M., Bergenfield
Kilts, W. S., Bogota
King, Chester A., Oradell
Knapp, Richard E., Hackensack
Knox, Charles A., Ridgefield Park
Knox, Harriet L., Hackensack
Lansing, James B. W., Tenafly
Levitas, George W., Westwood
Lewis, Alice B., Saddle River
Littwin, Charles, Palisade
Liva, Arcangelo, Rutherford
Liva, P. L., Lyndhurst
Lueddecke, Rowland E., E. Rutherford
Lynch, M. M., Hackensack
Lynn, John V., Ridgefield
MacKellar, James M., Tenafly
McCormack, Frank C., Englewood
McDannald, William S., Tenafly
McFeeley, Percy R., Bogota
McIlvaine, Wm. E., Ridgefield Park
Magner, John J., Hackensack
Myer, Edward H., Mahwah, N. J. (Suffern, N.Y.)
Morrow, Jos. R., Isolation Hospital, Oradell
Mosher, H. L., Lyndhurst
Muller, F. L., Carlstadt
O'Brien, Paul, East Rutherford
*Ogden, William E., Ridge Road, Rutherford
Pallen, Conde de S., Rochelle Park
Paradise, James A., Closter
Payne, Joseph, Midland Park

BERGEN COUNTY.—Continued.

Perham, Roy G., Hasbrouck Heights
Pettit, H. H., Ridgewood
Phillips, Walter, Englewood
Pitkin, George P., Bergenfield
Prather, John W., Dumont
Pratt, John E., Dumont
Proctor, James Wm., Englewood
Protzman, Thomas B., Englewood
Prout, William B., Teaneck
Pullen, Guy F., Leonia
Reid, Erwin W., Garfield
Richardson, Charles A., Closter
Riordon, John, E. Rutherford
Rodman, Robert W., Lyndhurst
Ruch, Louis, Englewood
Ruch, Valentine, Englewood
Sandler, Moses W., Fort Lee
Sarla, Michael, Hackensack
Sawyer, E. E., 336 1st st., Hackensack
Schmidt, Walter, Cliffside
Sealey, H. J., Dumont
Seymour, E. T., Tenafly
Smith, C. D., Ridgewood
Snedecor, S. T., Hackensack
Stevenson, George S., Hasbrouck Heights
Stone, Chester T., Ridgewood
Stuart, Alex. A. S., Ridgefield Park
Sullivan, Michael J., Englewood
Swayze, Alvah A., Hackensack
Teeter, John N., Englewood
Tether, R. K., Closter
Tidwell, G. W., Wallington
Tomkins, William, Ridgewood
Townsend, Theodore E., Westwood
Trossback, Herman, Bogota
Tyson, Francis B., Leonia
Van Dyke, Joseph S., Palisade Park
Vroom, W. L., Ridgewood
Walsh, T. M., Hasbrouck Heights
Ward, Alfred W., Demarest
Ward, George Harold, Englewood
Warren, Charles B., Bergenfield
Webb, Wilson D., Hackensack
Westerhoff, Peter D., Midland Park
Whitman, Loyd B., Bergenfield
Williams, W. C., Rutherford
Wiloughby, William F., Englewood
Wolowitz, Harry B., Hackensack
Worcester, George F., Englewood
Wurts, Margaret M., Englewood
Wyler, Max, Fort Lee
Young, F. X., Westwood

Honorary Members.

Calhoun, Charles, Rutherford, N. J.
Pratt, John E., Dumont, N. J.
Rodman, Robert W., Lyndhurst, N. J.

Transferred.

Tidwell, George W., to Missouri State Medical So.
Vandersluis, H. H., to Region Co., Minnesota

Number of members and basis of representation, 146.

100 Per cent. paid up March 8, 1929.

*Deceased.

BURLINGTON COUNTY. (3)

Society organized May .19, 1829. Meets second Wednesday in January, April, June and October. Annual meeting in October.

President.

Bauer, Harry W., Palmyra

Vice-President.

Stokes, S. Emlen, Moorestown

Secretary and Treasurer.

Tracey, George T., Beverly

Reporter.

Downs, Roscius I., Riverside

Censors.

Brick, Benjamin K., Marlton
Conroy, John S., Burlington
Mulford, E. R., Burlington
Ulmer, D. H. B., Moorestown

Anderson, Richard D., Burlington
Baird, David, Jr., Florence
Bauer, Harry W., Palmyra
Brick, Benjamin K., Marlton
Champlin, Paul M., Maple Shade
Curtis, Howard C., Moorestown
Darlington, Emlen P., New Lisbon
Davis, Jacob M., Burlington
Downs, Roscius I., Riverside
Dubell, John E., Columbus
Fahrenbruch, F. D., Mt. Holly
*Gordon, Altamont L., Burlington
Haines, Edgar J., Medford
Haines, J. Ridgeway, Mt. Holly
Haldeman, Robert E., Mt. Holly
Hollingshead, Lyman B., Pemberton
Hollingshead, I. W., 123 S. 18th st., Phila., Pa.
Hornberger, J. Howard, Roebling
Hunter, Edward R., Delanco
Kuder, Joseph M., Mt. Holly
Le Favor, Dean H., Palmyra
Longsdorf, Harold E., Mt. Holly
Love, Elizabeth F., Moorestown
Marcy, Alexander, Jr., Riverton
McDonnell, G. E., Mt. Holly
Maul, Stewart R., Riverside
Mendenhall, Clinton D., Bordentown
Metzer, Emma P. W., Riverside
Mills, Charles S., Riverton
Mulford, Ephraim R., Burlington
Newcombe, Marcus W., Brown's Mills
Reisinger, P. B., Roebling
Remer, Daniel F., Mt. Holly
Rink, W. E., Burlington
Rodman, E. Warren, Beverly
Rogers, Harry L., Riverton
Schisler, Milton M., Florence
Scott, Parry M., Beverly
Small, E. Lester, Medford
Stokes, Joseph, Moorestown
Stokes, S. Emlen, Moorestown
Thorne, Nathan, Moorestown
Tracy, George T., Beverly
Ulmer, David H. B., Moorestown
Wilkinson, George H., Moorestown

BURLINGTON COUNTY.—Continued.

Honorary Member.

Stoddard, Francis J., Riverton

Number of members and basis of representation, 44.

Transferred.

Smith, A. M., to Atlantic County Medical Society

Received on Transfer.

Zwick, W. W., from Kentucky State Medical So.

*Deceased.

CAMDEN COUNTY. (4)

Society organized August 14, 1846. Meets second Tuesday of every month. Annual meeting in October.

President.

Day, Grafton E., Collingswood

Vice-President.

Van Sciver, J. E. L., Camden

Secretary.

Buzby, B. Franklin, Camden

Treasurer.

Lewis, T. K., Camden

Reporter.

Schall, R. E., Camden

Historian.

Bentley, David S., Jr., Camden

Censors.

Cramer, Alfred D., Jr., Camden
Davis, Henry H., Toms River
Madden, Theodore W., Collingswood
Marcy, John W., Merchantville
Pratt, William H., 516 Cooper st., Camden

Baker, Maurice E., 1149 Kaighn av., Camden
Barb, K. B., Kaighn & Princess avs., Camden
Barrett, Wesley J., 517 Cooper st., Camden
Bailey, Wilson G., 512 Broadway, Camden
Bardsley, Chester A., Park av., Laurel Springs
Becker, C. Fred, 620 Benson st., Camden
Bentley, David F., Jr., 403 Cooper st., Camden
Brennan, John P., 511 State st., Camden
Brewer, David R., 536 Market st., Gloucester
Browning, W. Kempton, 120 N. C'ntre st.,M'ch'tv'le
Bush, Ralph K., 131 E. Park av., Merchantville
Buzby, B. Franklin, Jr., 414 Cooper st., Camden
Capuano, Giacinto, 829 S. 4th st., Camden
Casselman, Arthur J., 301 N. 2nd st., Camden
Ciliberti, Frank J., 5th & Pine sts., Camden
Clark, Ernest B., Westmont
*Clement, Edgar, W. Haddonfield
Clement, Lavina B., 124 King's H'hw'y, W. H'd'fi'd
Collier, Martin H., Camden Co. Hosp., Lakewood
Conoly, J. H., 300 Monmouth st., Gloucester
Conoly, L. N., 601 Walnut st., Camden
Crain, William E., 8 King's Highway, Mt.Ephraim
Cramer, Alfred, Jr., 211 N. 5th st., Camden
Crist, Walter A., 725 Collings av., W. Collingsw'd
Crowley, Joseph W., 4005 Westville av., Camden
Davis, Albert B., 511 Cooper st., Camden
Day, Grafton E., Fraxer & N. J. avs., Collingsw'd
Decker, Henry B., 527 Penn st., Camden
Deibert, Irwin E., 618 Benson av., Camden
Del Duca, Vincent, 919 S. 5th st., Camden
Donoho, A. P., Walnut & Centre, Merchantville
Dunham, Henry B., Camden Co. Hosp., Lakew'd
Eaton, Arthur T., 201 4th av., Haddon Heights
Ellis, Alexander, 513 Broadway, Camden
Elwell, Alfred M., 407 Cooper st., Camden
Ewing, Leslie H., Berlin
Evans, Winborne D., 2704 Westville av., Camden
Filkins, Cedric E., 417 White H'se Pike, Audubon
Fisher, Stella C., 4401 Westfield av., Camden
Gamon, Robert S., 558 Newton av., Camden
German, Geo. B., 511 Cooper st., Camden
Glover, Lawrence L., 232 King's Hwy., Haddonfi'd
Goldstein, Hyman I., 1425 Broadway, Camden
Haines, Mabel S., 600 White Horse Pike, Audubon
Haines, Wm. H., 217 Lafayette av., Audubon
Haley, John J., 851 Monmouth, Gloucester
Harris, Edwin A., Stratford
Hirst, E. Reed, 586 Federal st., Camden
Hirst, Levi B., 586 Federal st., Camden
Hollingshed, Beulah S., 600 Benson, Camden
Horner-Roger, Clara L., 721 Cooper, Camden
Howard, J. Edgar, 67 W. Main st., Haddonfield
Hughes, Thos. E., 223 Cooper st., Camden
Hummel, Ernest G., 414 Cooper st., Camden
Hummel, Merwin L., 12 Maple av., Merchantville
*Hurff, Joseph E., Blackwood
Hutcheson, Chas. R., 517 Cooper st., Camden
*Iszard, William H., Camden
Jack, H. Wesley, 920 Haddon av., Collingswood
Jackson, Chas. H., 1250 Pk. Boulevard, Camden
Jarrett, Harry, 925 Broadway, Camden
*Jennings, Chas. H., 116 No. Centre st., M'rch'tv'le
*Jennings, Wm. B., King's H'g'w'y, E. Haddonfi'd
Johnson, Chas. H., 632 Benson st., Camden
Kain, Wm. W., Cape May C't House, R.F.D.No.1
Kain, Thomas M., 403 Cooper st., Camden
Kaufman, Ernest W., 2225 River rd., Camden
Kline, Oram R., 414 Cooper st., Camden
Leavitt, John F., 522 N. 3rd st., Camden
Lee, Thomas B., 527 Penn. av., Camden
Lewis, Thos. K., 47 S. 27th st., Camden
Lippincott, A. Haines, 406 Cooper st., Camden
Lovett, Jos. C., Municipal Hospital, Camden
Lyon, Leslie C., P. O. Box 63, Magnolia
Macalister, Alex, 582 Federal st., Camden
McCarthy, Arthur M., 2772 Federal st., Camden
McConaghy, Thos. P., 1017 Cooper st., Camden
Madden, Theop. W., 16 Fraser av., Collingswood
Mahaffey, Jesse L., 408 Cooper st., Camden
Marcarian, Henry B., 904 Cooper st., Camden
Marcy, John W., 117 E. Park av., Merchantville
Marshall, Lawrence H., 689 Ferry av., Camden
Mecray, Paul M., 405 Cooper st., Camden
Meyer, George P., 410 Haddon av., Camden
Nicholson, Jos. L., 205 Wash. av., Haddonfield
Nowrey, Jos. E., Jr., 431 Vine st., Camden
Osmun, Milton M., 611 Broadway, Camden
Palm, Howard F., 614 N. 2d st., Camden
Phillips, Claude B., 891 Haddon av., Collingswood
Pike, Charles E., 411 Newton av., Oaklyn
Pinsky, M. Meyer, 444 Broadway, Camden
Pratt, William H., 516 Cooper st., Camden
Proncipato, Roberto, 402 Walnut st., Camden
Raughley, Wm. C., Taunton av., Berlin
Rhone, David S., 1202 Haddon av., Camden
Richardson, Emma M., 577 Steven st., Camden
Roberts, Jos. E., Jr., 403 Cooper st., Camden
Rogers, Edw. B., 814 Haddon av., Collingswood

CAMDEN COUNTY.—Continued.

Ross, Alex. S., 542 Cooper st., Camden
Rossell, Edward W., 801 Cooper st., Camden
Saunders, Orris W., 1700 Broadway, Camden
Schall, Elmer R., 7th & Elm st., Camden
Scheffler, Helen F., 726 Cooper St., Camden
Schrack, Helen F., 726 Cooper st., Camden
Schwartz, Henry C., Atco, N. J.
Scruggs, Wm. J., 3005 Kearsage rd.,Fairview,Cam.
Segal, Meyer, 514 Kaighn av., Camden
Shafer, Albert H., 409 Cooper st., Camden
Shafer, Fred'k Wm., 634 Penn av., Camden
Sharp, Jennie S., 726 Cooper st., Camden
Shaw, Ernest B., 811 Col'gsw'd av., W. Collingsw'd
Sherk, A. Lincoln, 2647 Westfield av., Camden
Shope, E. P., 956 Newton av., Camden
Sieber, Isaac G., 204 Merchant st., Audubon
Smith, James D., 701 N. 6th st., Camden
Smith, Walter H., 100 King's Hwy. W., Haddonfi'd
Stimis, H. G., 300 Kaighn av., Camden
Stone, A. L., 2838 Berkley st., Camden
Summerill, Garnett, 330 Cooper st., Camden
Van Sciver, John E. L., 106 Broadway, Camden
Vaughan, Jas. M., 825 Kaighn av., Camden
Ward. Lettie A., 325 Cooper st., Camden
West, Gordon F., 2704 Westfield av., Camden
Wilson, L. R., 1100 Kaighn av., Camden

Honorary Members.

Davis, Henry H., Toms River
De Groft, Eugene, Woodstown, N. J.
Donges, John W., Camden
Dowling, Benjamin
Garrison, The Hon. Charles, Merchantville
*Iszard, William H., Camden

Resigned.

Adams, George M.
Davenport, Irwin P.
Hallinger, Earl S.
McWilliams, Chas.
Moore, Wm. G.
Sheppard, R. L.

Received on Transfer.

Brewer, David, from Gloucester Co. Medical Soc.

Number of members and basis of representation, 120.

100 per cent. paid up March 8, 1929.
*Deceased.

CAPE MAY COUNTY. (5)

Society organized December 18, 1883. Meets first Tuesday in April and October. Annual meeting in October.

President.

Petitt, Herschel, Ocean City

Vice-President.

Cryder, Millard, Cape May Court House

Secretary and Reporter.

Way, Eugene, Dennisville

Treasurer.

Tomlin, H. Hurlburt, Wildwood

Censors.

Haines, Willets P., Ocean City
Hughes, Frank R., Cape May
Gandy, C. M., Ocean View

Corsan, Allen, Ocean City
Crowe, Aldrich, Ocean City
Cryder, Millard, Cape May Court House
Dandois, George F., Wildwood
Darby, A. Eugene, Ocean City
Friedland, A. J., Wildwood
Friedland, Ida, Wildwood
Gandy, Charles M., Ocean View
Haines, Willets P., Ocean City
Hughes, Frank R., Cape May
Mace, Margaret, Wildwood
Pettit, Herschel, Ocean City
Smith, Marcia V., Ocean City
Tomlin, H. Hurlburt, Wildwood
Townsend, John B., Ocean City
Way, Clarence W., Sea Isle City
Way, Eugene, Dennisville
Way, Julius, Cape May Court House
Whiticar, John H., Ocean City
Ziegler, Oscar, Wildwood

Honorary Members.

Gandy, Charles L., U. S. A.
Gordon, Alfred, Philadelphia, Pa.
Ingram, J. H., China
Reik, Henry O., Atlantic City

Number of members and basis of representation, 20.

CUMBERLAND COUNTY. (6)

Society organized June 16, 1816. Meets second Tuesday of January, April, July and October. Annual meeting in October

President.

Sewall, Millard F., Bridgeton

Vice-President.

Van Deusen, E. H., Vineland

Secretary.

Lyon, Earl C., Bridgeton

Treasurer.

Wilson, H. H., Bridgeton

Reporter.

Corson, Elton S., Bridgeton

Censors.

Kauffman, Louis J., Millville
Miller, H. G., Millville
Sewall, Millard F., Bridgeton

Bacon, Mary, Bridgeton
Baker, Hugh H., Vineland
Bennett, Samuel D., Millville
Branin, Howard S., Millville
Butcher, Charles, Heisleville
Clippinger, R. D., Vineland
Corson, Elton S., Bridgeton
Cornwell, Alfred W., Bridgeton
Day, Samuel Thomas, Port Norris

CUMBERLAND COUNTY.—Continued.

Elmer, Matthew K., Bridgeton
Foltz, H. S., Vineland
Franckle, Cornelius S., Millville
Fritts, Herbert H., Shiloh
Garrison, Walter Sherman, Cedarville
*Glendon, Walter P., Bridgeton
Gray, Charles M., Vineland
Harris, Allen, Greenwich
Kauffman, Louis J., Millville
Knowles, James S., Millville
Lloyd, Reba, (Kumpf), Bridgeton
Loper, John C., Bridgeton
Lore, Harry E., Cedarville
Lummis, C. Percy, Bridgeton
Lyon, Earl C., Bridgeton
Mayhew, Charles H., Millville
Miller, H. Garrett, Millville
Moore, John H., Bridgeton
Myatt, Leslie E., Bridgeton
Oliver, David H., Bidgeton
Ramsey, F. Muriel, Millville
Reeves, J. Franklin, Bridgeton
Sewall, Millard F., Bridgeton
Sharp, Charles E., Port Norris
Sheppard, A. G., Elmer
Shepperd, Frank R., Millville
*Slattery, Mary E., Vineland
Simkins, Raymond, Bridgeton
Smith, Thomas J., Bridgeton
Thomas, George N., Vineland
Van Deusen, Edwin H., Vineland
Wainwright, F. P., Bridgeton
Weithaase, Helen E., Vineland
Whaland, Berta, Bridgeton
Wilson, Charles W., Vineland
Wilson, Herbert H., Bridgeton
Winslow, John H., Vineland
Woodruff, Dare, Vineland

Associate Members.

Ashton, W. E., 2011 Walnut st., Phila., Pa.
Barton, J. M., 1314 Spruce st., Phila., Pa.
Deland, Judson, 317 S. 18th st., Phila., Pa.
De Costa, J. C., 2045 Walnut st., Phila., Pa.
Hare, H. A., 1801 Spruce st., Phila., Pa.
Hirst, B. C., 1821 Spruce st., Phila., Pa.
Keen, W. W., 1729 Chestnut st., Phila., Pa.
Noble, Charles P., 1509 Locust st., Phila., Pa.
Reisman, David, 162 Spruce St., Phila., Pa.

Honorary Members.

Applegate, J. C., 3504 N. Broad st., Phila., Pa.
Snyder, Sharp M., Greenwich.

Number of members and basis of representation, 45.

Transferred.

Egbert, E. H., to New Haven

*Deceased.

ESSEX COUNTY. (7)

Society organized June 18, 1816. Meets second Thursday, at call of Council, from October to May. Annual meeting in October.

President.

Connolly, Richard N., Newark

Vice-President.

Bingham, Arthur W., East Orange

Secretary.

Pinneo, Frank W., Newark

Treasurer.

Rogers, Robert H., Newark

Reporter

Wood, E. LeRoy, Newark

Councillors.

Kraker, D. A.
Van Ness, H. Roy
Griffiths, C. B.
McCormick, D. L.
Barkhorn, H. C.
Dowd, A. F.
Payne, Guy
Lowrey, J. H.

All (19) Ex-Presidents Ex Officio

*Abraham, Chas. F., 84 S. Arlington av., E. Or.
Abrams, A. B., 668 Clinton av., Newark
Adams, John K., 3 Prospect st., E. Orange
Albano, Joseph, 535 N. 7th st., Newark
Albee, Geo. C., 219 S. Orange av., S. Orange
Alexander, Wallace G., 48 Webster pl., Orange
Allen, G. Herbert, 181 Roseville av., Newark
Allen, James S., 49 Prospect st., E. Orange
Allen, William J., 114 Park st., Orange
Alling, Frederick A., 12 Central av., Newark
Ambrose, Anthony, 71 Congress st., Newark
Angelillo, M. C., 333 Clifton av., Newark
Areson, Wm. H., 153 B'vue av., Upper Montclair
Asher, Maurice, 186 Clinton av., Newark
Aszody, Paul, 9 Pierce st., Newark
Avidan, Maurice S., 30 Stratford pl., Newark
Bachmann, Wm., 87 Hillcrest ter., East Orange
Bagg, Linus W., 31 Lincoln Park, Newark
Baker, Charles F., 198 Clinton av., Newark
Baird, Thompson M., 782 Kearny av., Arlington
Baldwin, Samuel H., 626 Clinton av., Newark
Ball, Chas., E. A., 153 Valley rd., S. Orange
Balson, Zach D. B., 241 16th av., Newark
Banks, Winifred D., 6 N. Munn av., East Orange
Barkhorn, Henry C., 45 Johnson av., Newark
Bassin, John N., 25 Van Ness pl., Newark
Baum, Felix, 138 Clinton av., Newark
Becker, Fred W., 14 Clinton pl., Newark
Becket, George C., 350 Springdale av., E. Orange
Beggs, William F., 2 Lombardy st., Newark
Beisler, Lawrence G., 6 Union av., Irvington
Beling, Chris. C., 109 Clinton av., Newark
Bell, Thomas, 340 Belmont av., Newark
Benedict, A. C., 121 Irvington av., South Orange
Bengelsdorf, A., 175 Clinton av., Newark
Bennett, Charles D., 300 Broadway, Newark
Bennett, W. F., Essex Co. Sanatorium, Verona
Berardinelli, C. G., 32 Eighth av., Newark
Berg, S., 530 Central av., Newark
Beyer, Othmar J., 42 Laurel av., Irvington
Bianchi, Angelo R., 104 7th av., Newark
Bien, Frank A., 999 Clinton av., Irvington
Birdsall, Clarence A., 3 Small av., Caldwell
Bingham, Arthur W., 219 Harrison st., E. Orange
Bissett, John V., 15 Lombardy st., Newark
Blackburne, George, 19 Fulton st., Newark
Blakely, Edward W., 232 Ivy Court, Orange
Blanchard, Kenneth, 25 S. Munn av., E. Orange
Bleick, Theo. E., 61 Van Ness pl., Newark

ESSEX COUNTY.—Continued.

Bleick, William D., 22 Osborne ter., Newark
Bleier, Louis, 31 Lincoln Park, Newark
Blum, Karl M., 604 Central av., Orange
Bogdan, E. A., Smalley ter. & Grove st., Irvington
Bokor, Emory, 544 Springfield av., Newark
Bootay, Fred S., 607 Washington av., Belleville
Boyle, Thos. P., 2 Gouverneur st., Newark
Bradford, Stella S., 16 Seymour st., Montclair
Bradshaw, John H., 27 High st., Orange
Braun, Gus A., 391 Bergen st., Newark
Breitstadt, Chas. A., 259 Roseville av., Newark
Brien, Wm. M., 449 Main st., Orange
Brim, Anne J. S., 373 William st., East Orange
Broadnax, Mary E., 83 Lincoln Park, Newark
Brooke, C. R., 13 Pennington st., Newark
Brothers, J. H., 128 Broad st., Newark
Brotman, Morton M., 90 Avon av., Newark
Brown, Chester R., 22 Midland av., Arlington
Brown, Chester T., Prudential Ins. Co., Newark
Brown, Jas. S., 43 S. Fullerton av., Montclair
Brown, Lewis W., 904 Sanford av., Irvington
Brown, Richard J., 211 Roseville av., Newark
Bruington, S. S., 115 Spruce st., Newark
Buckley, J. L., 684 Franklin av., Nutley
Buckner, R. W. H., 157 Somerset st., Newark
Buermann, William, 9 Lincoln Park, Newark
Bull, Robert I., 301 Florence av., Newark
Bull, William J., 98 Park st., Montclair
Bunn, F. C., 30 Hillyer st., Orange
Burke, Stephen E., 212 First av., Newark
Burne, John J., 17 Gould av., Newark
Burns, Edward L., 261 Broad st., Newark
Busch, Herman, 38 Johnson av., Newark
Bush, Archer C., 40 Union av., Montclair
Butler, Eustace C., 249 Bloomfield av., Caldwell
Buvinger, Chas. W., 50 Washington st., E. Orange
Byck, Louis, 114 Lyons av., Newark
Cahill, L. A., 353 Lafayette st., Newark
Caldwell, J. A., 45 S. Mountain av., Montclair
Camche, L. J., 94 Hawthorne av., Newark
Cameron, Edwin A., 186 S. Burnett st., E. Orange
Campbell, H. B., 21 Court st., Newark
Campbell, Wellington, Short Hills
Carbone, Francis R., 157 Hunterdon st., Newark
Cardwell, E. P., 12 Central av., Newark
Carman, Fletcher F., 31 Lincoln Park, Newark
Casale, John B., 200 Highland av., Newark
Cater, Douglas A., 55 Harrison st., E. Orange
Chamberlain, Aims R., Maplewood
Chapman, R. W., 835 Bergen st., Newark
Chattin, J. Franklin, 671 Broad st., Newark
Cherashore, H., 363 Centre st., Nutley
Chiger, Alex S., 621 High st., Newark
Chmelnik, A. G., 919 Bergen st., Newark
Clark, J. Henry, 12 Walnut st., Newark
Clarken, Jos. A., 43 Lincoln Park, Newark
Close, J. Frederick, 78 N. Arlington av., E. Orange
Coghlan, Jasper, 17 Academy st., Newark
Cohen, M., 106 Valley rd., Montclair
Cohen, Sidney L., 9 Hillside av., Newark
Cohn, Herman, 393 Clinton av., Newark
Cohn, Royal M., 740 Clinton av., Newark
Colsh, LeRoy L., 202 Maplewood av., Maplewood
Comando, Harry N., 31 Lincoln Park, Newark
Condon, John F., 686 Mt. Prospect av., Newark
Conlon, Philip, 25 James st, Newark
Connamacher, H. S., 671 Springfield av., Newark
Connolly, John J., 30 Wallace pl., Newark
Connolly, Richard N., City Hospital, Newark
Cook, Hugh F., 443 Broad st., Newark
Cook, Mary, 12 James st., Newark
Cooke, Wm. H., 303 Main st., East Orange
Corrigan, Geo. F., 344 Lafayette st., Newark
Corwin, Theo. W., 671 Broad st., Newark
Coughlan, Ella A., 10 Oakwood av., Orange
Cox, John Calvin, 187 Maplewood av., Maplewood
Crane, Chas. G., 78 Farley av., Newark
Crankshaw, C. W., Prudential Ins. Co., Newark
Craster, Chas. V., 381 Parker st., Newark
Crawford, G. V., 28 Carnegie av., E. Orange
Crecca, Wm. D., 111 Park av., Newark
Creswell, Willis W., 48 Warren st., Newark
Curtis, Elbert A., 65 Central av., Newark
Dane, Chas., 61 Scotland rd., South Orange
Dane, John, 61 Scotland rd., South Orange
Daniell, Arthur, 611 Springdale av., East Orange
Danzis, Max, 31 Lincoln Park, Newark
Daron, S., 61 West st., Newark
Davenport, Peter B., 764 S. Orange av., Newark
Davidson, Louis L., 190 Clinton av., Newark
Davis, Lester R., 59 Chancellor av., Newark
Del Deo, Nicholas V., 47½ State st., Newark
Demarest, Lawrence M., 228 S. Orange av., S. Or.
Denes, O., 402 Centre st., Nutley
Dennis, John, 1739 N st., N. W., Washington, D.C.
Deriveaux, John A., 103 Clinton av., Newark
De Vausney, Winfield S., 27 Fulton st., Newark
Devlin, Frank, 617 Broadway, Newark
Devlin, Hugh J., 72 Thomas st., Newark
Dias, Joseph L., 17 Lombardy st., Newark
Dieffenbach, Rich'd H., 570 Mt. Prosp. av.,Newark
Dodd, Edward L., 131 Forest st., Belleville
Dodd, Raymond C., 18 Snowden pl., Glen Ridge
*Dodge, Walter, 36 Cleveland st., Orange
Donahue, Wm. J., 173 Roseville av., Newark
Donnelly, Robt. J., 26 Wallace pl., Newark
Doremus, Widmer E., 32 Fulton st., Newark
Dorn, Elliot I., 267 Vassar av., Newark
Dowling, Chas. E., 215 Park av., Orange
Dragonetti, Edvige N., 177 Clifton av., Newark
DuBois, M. G., 769 High st., Newark
Dulin, Everett K., 73 N. Arlington av., E. Orange
Duncker, Fred'k W., 15 Court st., Newark
Eagleton, Wells P., 15 Lombardy st., Newark
Echikson, Joseph I., 845 S. 12th st., Newark
Edelen, James J., 189 Amherst st., East Orange
Edwards, Sarah M., 207 Summer av., Newark
Ein, Wm. B., 31 Lincoln Park, Newark
Einhorn, Rosa, 468 Clinton av., Newark
Elliot, Daniel, 44 Bleecker st., Newark
Ellis, Arthur J., 23 Milford av., Newark
Emerson, Linn, Metropolitan Bldg., Orange
Emmer, S. Wolfe, 234 Clinton av., Newark
Englander, C., 41 Hillside av., Newark
English, James R., 51 Cypress st., Newark
English, John T., 702 Stuyvesant av., Irvington
Epler, Don A., 45 Hillside av., Newark
Epstein, Henry B., 31 Lincoln Park, Newark
Erler, Eugene W., 119 N. 5th st., Newark
Ewing, Harvey M., 31 Lincoln Park, Newark
Failing, Brayton E., 71 Washington st., Newark
Farden, Jos. L., 342 Roseville av., Newark
Farr, Irving L., 214 Walnut st., Montclair
Faughnan, Rose, 97 High st., Passaic
Fechner, Julius, 138 W. Kinney st., Newark
Fern, S. S., 122 Elizabeth av., Newark
Ferris, Sanford J., 321 S. 9th st., Newark
Fewsmith, Jos. L., 120 Second av., Newark
Fine, M. J., 31 Lincoln Park, Newark
Finesilver, Edward M., 31 Lincoln Park, Newark
Finkler, Rita S., 642 High st., Newark
Fischer, E. J., 29 Ashland ter., W. Orange
Fischer, Wm. C., 731 Mt. Prospect av., Newark
Fitzpatrick, Edward F., 574 Warren st., Newark
Flachs, Adolph, 347 Lafayette st., Newark
Flower, Morris A., 39 Lincoln Park, Newark
Flynn, E. A., 161 Washington av., Belleville
Forsyth, Kenneth C., 533 Broadway, Newark

ESSEX COUNTY.—Continued.

Fort, J. Irving, 306 Roseville av., Newark
Forte, Frank S., 456 Roseville av., Newark
Foster, Herbert W., 10 The Crescent, Montclair
Foster, W. Story, 233 Mt. Prospect av., Newark
Frederick, Gus H., 349 Camden st., Newark
Freeman, Richard D., 103 Scotland rd., S. Orange
Freinkel, J., 100 Avon av., Newark
Froelich, J. C., 74 Ingraham pl., Newark
Froomess, Leo E., 39 Lincoln Park, Newark
Fuerstman, H. L., 570 High st., Newark
Furman, Benj. A., 31 Roseville av., Newark
Furst, Nathan J., 190 Johnson av., Newark
Ganley, Arthur J., 390 Park av., East Orange
Gantz, Emma O., 215 N. Grove st., East Orange
Gardam, Jos. W., 16 Longfellow av., Newark
Gauch, William, 177 Elwood av., Newark
Gennell, Ernest, 298 Parker st., Newark
George, M. E. W., 805 Broadway, Newark
Gershenfeld, David B., 20 Hillside av., Newark
Gifford, W. Royal, 247 Park av., East Orange
Gilbert, Harry J., 588 Broadway, Newark
Glass, William H., 108 High st., Orange
Glass, Oscar, 638 High st., Newark
Goeller, J. D., 1165 W. Clinton av., Irvington
Goffman, Emanuel, 67 Valley rd., Montclair
Goldstein, Wm. H., 281 Kearny av., Kearny
Goodwin, Wm. M., 75 Congress st., Newark
Gordon, A. J., 273 Roseville av., Newark
Grady, Wm. F., 42 N. Fullerton av., Montclair
Graves, Wm. B., 426 Main st., East Orange
Gray, John W., 142 Clinton av., Newark
Green, William H., 230 Bank st., Newark
Greenbaum, S., 400 Belmont av., Newark
Greenberg, Samuel, 46 Johnson av., Newark
Greenfield, Bern'd H., 691 Clinton av., Newark
Greifinger, M. H., 225 Pomona av., Newark
Griffith, Roy, 909 Broad st., Newark
Guthrie, W. G., 300 Summer av., Newark
Hagerty, John F., 30 Wallace pl., Newark
Hagney, Fred W., 669 Elizabeth av., Newark
Hahn, Katherine B., (No address)
Hahn, William, 15 Lombardy st., Newark
*Halperin, Clement J., 641 High st., Newark
Halperin, Harry, 8 Washburn pl., Caldwell
Halperin, Samuel, 22 Hill st., Newark
Halsey, Levi W., 61 Church st., Montclair
Hamilton, B. C., 83 2nd av., Newark
Hanan, Jas. T., 11 The Crescent, Montclair
Harden, Albert S., 540 Warren st., Newark
Harhen, Geo. E., 22 Brookside av., Caldwell
Hart, Hugh M., 300 Mt. Prospect av., Newark
Harvey, Thos. W., 59 Main st., Orange
Harvey, Thos. W., Jr., 59 Main st., Orange
Hauck, Lydia B., 644 Stuyvesant av., Irvington
Hauck, Wm. H., 644 Stuyvesant av., Irvington
Hauck, Wm. J., 207 Mt. Prospect av., Newark
Haussling, Francis R., 661 High st., Newark
Hawkes, E. Zeh, 84 Washington st., Newark
Heath, Louanna, 20 Fairmount av., Newark
Heller, Nathan B., 189 16th av., Newark
*Hemsath, John, 36 Spruce st., Newark
Herman, John H., 197 S. Centre st., Orange
Herold, Harvey T., 850 S. 13th st., Newark
Hewson, Jas. S., 374 Avon av., Newark
Hexamer, Fred, 50 Lyons av., Newark
Hicks, William H., 46 Milford av., Newark
Hill, Robert H., 196 Roseville av., Newark
Hirschberg, Samuel, 615 High st., Newark
Hobert, Richard T., 191 Bellev'le av., U. Montclair
Hoeller, Wm. F., 808 S. 11th st., Newark
Holden, Edgar, Jr., 217 Broadway, Newark
Holler, Henry G., 234 Montclair av., Newark
Holmes, Geo. J., 17 Elizabeth av., Newark
Hood, Philip G., 19 Lincoln Park, Newark
Horn, Max, 80 Lyons av., Newark
Horsford, Fred C., 305 Broadway, Newark
Hosp, Paul H., 842 S. 12th st., Newark
Hubbard, Fayette E., 65 Church st., Montclair
Huber, Wm. H., 15 Salem st., Newark
Huberman, J., 853 S. 12th st., Newark
Hughes, Lee W., 1019 Broad st., Newark
Hughes, Morgan D., 1 Park pl., Bloomfield
Hulett, Albert G., 20 Hawthorne av., East Orange
*Hunt, Ralph H., 29 Harrison st., East Orange
Hurff, Jos. W., 86 Washington st., Newark
Husserl, Siegfried, 777 Clinton av., Newark
Ill, Carl H., 188 Clinton av., Newark
Ill, Charles L., 188 Clinton av., Newark
Ill, Edgar A., 1004 Broad st., Newark
Ill, Edward J., 1004 Broad st., Newark
Ill, Herbert M., 188 Clinton av., Newark
Inge, Theo. R., 134 W. Kinney st., Newark
Irwin, Jas. R., 330 Washington av., Belleville
Jackson, Albert F., Hillside av., Nutley
Jackson, E. C., 98 Washington av., E. Orange
Jackson, Geo. G., 20 Milford av., Newark
Jacobson, Fred'k C., 1074 Broad st., Newark
Janifer, Clarence S., 208 Parker st., Newark
Jaso, Jas. V., 274 Littleton av., Newark
Jedel, Meyer, 125 Fourth st., Newark
Jessurun, S. H., 613 High st., Newark
Just, Francis, 564 High st., Newark
Kalter, George E., 640 Prospect, Maplewood
Kaufman, Ignatz, 190 Clinton av., Newark
Kaufman, Jerome G., 299 Clinton av., Newark
Kaufman, M. J., 319 Belmont av., Newark
Kaufhold, Frank, 41 Leslie st., Newark
Kavanaugh, D. E., 252 Washington st., Belleville
Keim, Wm. F., 25 Roseville av., Newark
Keller, Paul, Beth Israel Hospital, Newark
Keller, Sidney C., 31 Lincoln Park, Newark
Kenney, J. A., 132 W. Kinney st., Newark
Kern, E. Clarence, 45 Park st., Montclair
Kerns, Francis J., 556 Warren st., Newark
Kessler, Henry B., 666 Clinton av., Newark
Kildee, Henry A., Essex Co. Hosp., Cedar Grove
Kirkman, Leroy G., 176 Roseville av., Newark
Kirkwood, Allan S., 61 Elm st., Montclair
Klein, Edward C., Jr., 209 Littleton av., Newark
*Klein, Emanuel, 680 Clinton av., Newark
Klein, Ignatz, 471 Springfield av., Newark
Klenk, J. P., 328 Belleville av., Bloomfield
Koch, Louis A., 16 Chestnut st., Newark
Kraker, David A., 31 Lincoln Park, Newark
Kravtzov, Mark A., 553 S. 12th st., Newark
Krone, W. F., 39 Lincoln Pk., Newark
Kruger, William, 31 Lincoln Park, Newark
Lane, Austin W., 59 Prospect st., East Orange
Lane, Frank B., 33 Woodland av., East Orange
Lawrence, M. J., 279 Mt. Prospect av., Newark
Lebel, Louis J., 165 Grant av., Nutley
Lee, Stephen G., 55 Halsted st., East Orange
Lehman, Irving J., 558 Central av., Newark
Leonardis, Jas. V., 94 Jefferson st., Newark
Levin, Joseph, 322 Hawthorne av., Newark
Levin, M. L., 209 Avon av., Newark
Levy, Julius, 66 Baldwin av., Newark
Lewis, Geo. R., 458 Washington av., Belleville
Leyenberger, S. B. W., 310 Mt. Prospect, Newark
Livingston, Paul, 299 Main st., East Orange
Lobo, J. P., 118 Ferry st., Newark
Lockwood, Frank W., 237 Prospect st., E. Orange
Long, Herbert W., 102 Jefferson st., Newark
Lottridge, Dorothy, 43 S. Maple av., E. Orange
Lovell, Fred'k H., 1013 Clinton av., Irvington
Lovell, J. F., 1011 Clinton av., Irvington
Lowitz, Otto, 78 Clinton av., Newark
Lowrey, Jas. H., 79 Congress st., Newark

ESSEX COUNTY.—Continued.

Lowy, Otto, 190 Clinton av., Newark
Luban, Benjamin, 730 High st., Newark
Lundblad, Walt. E., 555 William st., East Orange
Luongo, Frederico, 212 So. Centre st., Orange
Lyons, James V., 333 Park av., Orange
MacArthur, C., 172 Roseville av., Newark
Macdonald, Wentworth S., 56 Church st., M'tclair
Mac Pherson, Elwood H., 12 Rawley pl., Millburn
McBride, Hesser G., 1072 S. Orange av., Newark
McCabe, Thos. S., 913 Broad st., Newark
McCormick, Daniel L., 9 Tichenor st., Newark
McCroskery, Jas. H., 206 N. Arlington av., E. Or.
McEwin, Floy, 299 Broadway, Newark
McKiernan, Robt. L., 31 Lincoln Park, Newark
McLellen, Geo. A., 19 Hawthorne av., E. Orange
McVay, Edward A., 234 Lafayette st., Newark
Maas, Max A., 329 Clinton av., Newark
Mabey, J. Corwin, 242 Clairmont av., Montclair
Maciejewski, A. S., 212 Van Buren st., Newark
Mancusi-Ungaro, E., 156 Mt. Prospect av., Newark
Mancusi-Ungaro, L., 156 Mt. Prospect av., Newark
Margulis, Boris, 339 Hawthorne av., Newark
Marks, Edward G., 655 Kearny av., Arlington
Marquis, Dean W., 520 Park av., E. Orange
Martin, Wm. P., 25 Holland rd., S. Orange
Martine, Frank L., 182 Roseville av., Newark
Martinetti, Carlo D., 311 Central av., Orange
Martland, Harrison S., 180 Clinton av., Newark
Martucci, Louis, 192 Mt. Prospect av., Newark
Matheke, O. G., 328 Sussex av., Newark
Matthews, H. E., 504 Hillside av., Orange
May, Ernst A., 728 High st., Newark
Medd, John C., 25 Curtis pl., Maplewood
Mcehan, Martin M., 225 Union av., Belleville
Meeker, Frank B., 355 Clifton av., Newark
Meeker, Irving A., 581 Valley rd., U. Montclair
Menk, Paul E., 31 Lincoln Park, Newark
Mercelis, Eliz., 17 Plymouth st., Montclair
Mercer, Archibald, 31 Washington st., Newark
Merliss, Eugene, 386 Clinton av., Newark
Miller, Jos. A., 364 Prospect st., South Orange
Minard, E. L., 140 4th av., East Orange
Minnefor, Chas. A., 214 S. 6th st., Newark
Minningham, Wm. D., 18 Hedden ter., Newark
Mishell, Daniel R., 85 Lincoln Park, Newark
Mitchell, August J., 59 South st., Newark
Mockridge, Oscar A., 8 S. Mountain av., Montclair
Moore, Dean C., 73 N. Arlington av., E. Orange
Moore, John D., 6 Washington av., Bloomfield
Morgan, Browne, 260 Liberty st., Bloomfield
Morris, Clement, 513 Broadway, Newark
Morrison, Caldwell, 379 7th av., Newark
Morrison, J. Bennett, 66 Milford av., Newark
Morse, Geo. V., 70 Watsessing av., Bloomfield
Motzenbecker, P. F., 31 Lincoln Park, Newark
Moulton, Chas. D., 122 Park av., East Orange
Mount, W. B., 21 Plymouth, Montclair
Mullin, Raymond J., 857 S. 11th st., Newark
*Murray, Eugene W., 433 Mt. Prospect, Newark
Murray, Harold A., 624 Mt. Prospect av., Newark
Muta, Samuel A., 47 Park av., West Orange
Nash, Albert B., 10 S. 13th st., Newark
Nash, Alexander E., 20 Forest av., Verona
Nash, Herman S., 861 S. 11th st., Newark
Nash, W. G., 20 Clinton st., Newark
Naturo, Joseph, 172 Littleton av., Newark
Newman, Emanuel D., 81 New st., Newark
Newman, Julius, 10 Osborne ter., Newark
Noll, Louis, 1026 Clinton av., Irvington
Nydes, John, 239 Springfield av., Newark
Nyiri, William, 17 Hillside av., Newark
O'Connor, D. F., 671 Broad st., Newark
O'Connor, M. J., 9 Chapman pl., Irvington
O'Crowley, Clarence R., 31 Lincoln Park, Newark
O'Neil, Chas. L., 11 N. 7th st., Newark
Olcott, Geo. P., 23 Hamilton st., East Orange
Oleynick, S., 107 Clinton av., Newark
Olini, Joseph J., 30 Breintnall pl., Newark
Openchowski, M., 635 High st., Newark
Orloff, Samuel, 155 Polk st., Newark
Orton, Henry B., 24 Commerce st., Newark
Ost, Henry B., 1109-A Broad st., Newark
Paczkowski, Thad., 194 Broad st., Bloomfield
Paddock, Royce, 1019 Broad st., Newark
Palmer, Gideon H., 10 N. Munn av., East Orange
Palmer, H. S., 257 Mulberry st., Newark
Pannell, Walter L., 7 Prospect st., East Orange
Pannullo, John N., 260 Van Buren st., Newark
Parisi, Anthony, 150 Hunterdon st., Newark
Parker, John E., 385 Park av., Orange
Parsonnet, Aaron E., 3 Madison av., Newark
Parsonnet, Eugene V., 31 Lincoln Park, Newark
Pascall, Thos. M., 197 Lincoln av., Newark
Payne, Guy, Overbrook Hospital, Cedar Grove
Peer, Lyndon A., 1019 Broad st., Newark
Pendexter, Sid. E., 11 S. Arlington av., E. Orange
Petry, William, 109 Treacy av., Newark
Phelan, Edward, 18 South st., Newark
Philhower, Geo. B., 281 Grant av., Nutley
Phillips, A. A., 150 Walnut st., Newark
*Pignataro, Mateo S., 37 Johnson av., Newark
Pilch, Arthur C., 1 Willard av., Bloomfield
Pinneo, Frank W., 439 Mt. Prospect av., Newark
Pizzi, Francis W., 205 Park av., Orange
Plante, Amos A., 228 Dunnell rd., Maplewood
Poleviski, Jacob, 682 High st., Newark
Pomeranz, R., 31 Lincoln Park, Newark
Potter, Raymond T., 86 Harrison av., East Orange
Potter, Robert C., 25 Fulton st., Newark
Preston, Perry B., 12 Palm st., Newark
Price, Nathaniel G., 31 Lincoln Park, Newark
Pringle, F. A., 192 Clairmont av., Montclair
Pudney, William K., 11 Seymour av., Montclair
*Pyle, Wellden, 110 Irvington av., S. Orange
Quinby, Wm. O'Gorman, 14 James st., Newark
Rado, William, 48 Wilson av., Newark
Rados, Andrew, 299 Clinton av., Newark
Ramos, Nicholas J., 188 Market st., Newark
Ranson, Bris. B., Jr., 601 Ridgew'd av., Maplew'd
Rath, Irving I., 154 Clinton pl., Newark
Rathgeber, Chas. F., 18 William st., East Orange
Rathgeber, Wm. M., 249 Roseville av., Newark
Ravitz, Samuel F., 1113 Broad st., Newark
Rawitz, Sidney B., 190 Clinton av., Newark
Reich, H., 765 High st., Newark
Reinfeld, A. G., 354 Clinton av., Newark
Reissman, E., 31 Lincoln Park, Newark
Reitter, Geo. S., 191 Halsted st., East Orange
Renzulli, Francesco, 228 S. 7th st., Newark
RePass, Paul E., 317 Central av., Orange
Ribbans, Robert C., 63 Central av., Newark
Rich, Charles, 191 Littleton av., Newark
Rich, Harry H., 32 Broad st., Newark
Richardson, Arthur, 60 Orange rd., Montclair
Ricketts, Henry E., 31 Lincoln Park, Newark
*Ringland, Robert F., 56 Church st., Montclair
Ripley, Edward W., 11 Seymour st., Montclair
Rizzolo, Edward E., 250 Mt. Prospect av., Newark
Robbin, Lewis, 16 Clinton pl., Newark
Robbins, Charles M., 31 Lincoln Park, Newark
*Robertson, Samuel E., 60 Tuscan rd., Maplewood
Robinson, Benjamin A., 265 Mulberry st., Newark
Roeber, Wm. J., 21 Nesbit pl., Irvington
Rogers, Harry, 60 Main st., Orange
Rogers, Richard M., 1 Wallace st., Newark
Rogers, Robert H., 49 9th av., Newark
Roh, Robert F., 1117 So. Orange av., Newark
Rosenberg, L. Charles, 11 Murray st., Newark

ESSEX COUNTY.—Continued.

Rosenstein, S. L., 557 Clinton av., Newark
Roth, I. I., 143 Clinton pl., Newark
Roth, Oswald H., 210 Littleton av., Newark
Rothenberg, S., 1 Hillside av., Newark
Rothseid, Abraham, 29 Scheerer av., Newark
Rubin, A. A., 433 Washington av., Belleville
Rubinow, Saul M., 755 High st., Newark
Rumage, Wm. T., 232 Lafayette st., Newark
Runyon, Wm. J., 106 Broad st., Bloomfield
*Runyon, Mefford, 110 Irvington av., S. Orange
Russell, L. Crawford, 192 Clinton av., Newark
Santora, Philip J., 192 Elm st., Newark
Satchwell, H. H., 640 Stuyvesant av., Irvington
Schaaf, Edward O., 217 S. Orange av., Newark
Schaaf, Royal A., 413 Mt. Prospect av., Newark
Schachter, H. A., 6 Milford av., Newark
Schaefer, Eugene P., 12 Harrison pl., Irvington
Schectman, Vera, 385 Osborne ter., Newark
Schiffman, Samuel, 18 Schuyler av., Newark
Schiller, Nicholas, 402 Clinton av., Newark
Schneider, Charles A., 694 Clinton av., Newark
Schneider, Louis A., 874 S. 13th st., Newark
Schramm, Joseph A., 23 Darcy st., Newark
Schulsinger, S., 136 Fleming av., Newark
Schulte, H. A., 710 Clinton av., Newark
Schwartz, Emanuel, 561 High st., Newark
Scott, R. Hunter, 205 Roseville av., Newark
Scranton, Chas. W., 31 Washington st., E. Orange
Scudder, F. D., 63 S. Fullerton av., Montclair
Seidler, William F., 21 Ferry st., Newark
Seidler, V. B., 16 Plymouth st., Montclair
Seidman, Edwin A., 580 High st., Newark
Seidman, Marcus, 580 High st., Newark
Seifert, Edwin A., 11 The Crescent, Montclair
Shannon, Jas. B., 56 Church st., Montclair
Shapiro, Louis, 279 Schley av., Newark
Shaul, F. G., 10 Washington st., Bloomfield
Sherman, Elbert S., 671 Broad st., Newark
*Shick, Wm. F., S. Munn av., East Orange
Siegel, J. W., 96 S. 10th st., Newark
Silver, H. B., 357 Hawthorne av., Newark
Silverstein, Benj. J., 32 Hillside av., Newark
Simmon, Albert V., 720 Prospect st., Maplewood
Simon, Ludwig, 214 Ferry st., Newark
Simonson, Louis, 80 Millington av., Newark
Skwirsky, Joseph, 130 Watson av., Newark
Smalley, Sara D., 530 Clifton av., Newark
Smalzreid, Elmer W., 167 N. Grove st., E. Orange
Smith, Byron J., 347 16th av., Irvington
Smith, Ellis L., Soho Hospital, Belleville
Smith, L. H., 32 Washington st., East Orange
Snavely, Earl H., City Hospital, Newark
Snedeker, A. W., 580 Washington av., Belleville
Sobin, Julius, 77 13th av., Newark
Sprague, Edward W., 86 Washington st., Newark
Staehle, Richard H., 34 Lyons av., Newark
Staehlin, Edward, 15 Lincoln Park, Newark
Stage, Jacob S., 601 Clinton av., Newark
Stahl, Alfred, 55 Lincoln Park, Newark
Stahl, Charles, 116 Lyons av., Newark
Steiner, Edwin, 19 Lincoln Park, Newark
Stevens, Merton B., 3 N. Arlington av., E. Orange
Stevens, J. Thompson, 55 Park st., Montclair
Stickles, Lloyd C., 49 Parkhurst st., Newark
Stokes, Earl B., 49 Prospect st., East Orange
Straub, Herbert H., 242 Springdale av., E. Orange
*Sutton, Fred A., 156 N. Day st., Orange
Synnot, Martin J., 63 S. Fullerton av., Montclair
Szerlip, L., 31 Lincoln Park, Newark
Tansey, W. A., 520 Sanford av., Irvington
Tarbell, Henry A., 11 Pennington st., Newark
Taylor, G. Herbert, 590 Ridge av., Maplewood
Teeter, Charles E., 418 Orange st., Newark
Teimer, Theodore, 17 Hillside av., Newark
Tenney, Albert S., 650 Central av., E. Orange
Thayer, Henry W., 28 Dodd st., Bloomfield
Thomas, J. H., Jr., 270 Lenox av., S. Orange
Thompson, Austin B., 479 Highland av., Orange
Thompson, Arthur F., 22 Washington st., E. Or.
Thompson, C. S., 125 Weequahic av., Newark
Thompson, David C., 96 Broad st., Bloomfield
Thornhill, Arthur, 147 Forest st., Montclair
Titman, Russell E., 275 Dodd st., East Orange
Tobey, F. J., 11 Hazelwood av., Newark
Tommassi, Chas. F., 166 Lafayette st., Newark
Toye, John E., 590 Kearny av., Arlington
Trentzsch, Philip J., 204 Berkley av., Bloomfield
Tucker, W. S., 20 E. Kinney st., Newark
Twitchell, A. B., 162 S. Orange av., South Orange
Tymeson, Walter R., Metropolitan Bldg., Orange
Ulan, Oscar, 174 Fleming av., Newark
Vail, Herbert B., 301 Washington av., Belleville
Vanderhoff, Irving M., 9 Clinton st., Newark
Van Emburg, Geo. H., 575 Belgrove Drive, Arl'g'n
Vannatta, Geo. W., 224 N. Park st., East Orange
Van Ness, H. Roy, 218 Mt. Prospect av., Newark
Von Hofe, Fred'k H., 255 Conway ct., E. Orange
Voorhees, Florence E., 83 Lincoln Park, Newark
Vreeland, R. D., L. Bamberger & Co., Newark
Waite, George N., 569 High st., Newark
Wakeley, W. E., 323 Meadowbrook, South Orange
Wakeley, Wm. A., 120 Main st., Orange
Wallhauser, Henry J. F., 31 Lincoln Park, Newark
Walton, R. W., 48 N. Fullerton av., Montclair
Ward, Gertrude P., 41 Park pl., Bloomfield
Ward, Wm. R., 112 Chancellor av., Newark
Warner, Wm. H. A., 444 Central av., E. Orange
Washington, Walter S., 520 Parker st., Newark
Weber, Francis C., 210 Mt. Prospect av., Newark
Webner, C. F., 71 Lincoln Park, Newark
Weinmann, Max H., 714 Scotland rd., Orange
Weinstock, Michael B., 206 Ridgew'd av., Newark
Weiss, Lazare, 404 Bergen st., Newark
Weiss, Louis, 849 So. 11th st., Newark
Weiss, Selma, 330 Belmont av., Newark
Wendel, Aug. V., 205 Littleton av., Newark
Wendelboe, L. T., 558 S. 10th st., Newark
Weston, C. G., 27 Woodlawn av., Glen Ridge
Whelan, Edward P., 231 Franklin av., Nutley
Wherry, Elmer G., 323 Clinton av., Newark
Whitehorne, Henry B., 32 Grove av., Verona
Willan, E. H., 86 S. Oraton Parkway, E. Orange
Williams, Irving D., 433 Mt. Prospect av., Newark
Willner, Irving, 18 Waverly av., Newark
Wintsch, Carl H., 841 S. 12th st., Newark
Wismar, Wm. F., 108 Belmont av., Newark
Wolfe, Wm. W., 383 Mulberry st., Newark
Wolfs, Jean F., 3 Leslie st., Newark
Wood, E. LeRoy, 31 Lincoln Park, Newark
Woodworth, Lucius J., 283 Franklin st., Bloomfi'd
Woolf, Bernard H., 15 Heddon ter., Newark
Wort, Frederick J., Jr., 1080 Broad st., Newark
Wrensch, Alex. E., 79 Valley rd., Montclair
Wyker, Arthur W., 1 Park pl., Bloomfield
Yaguda, A., 651 High st., Newark
Zehnder, Anthony C., 188 Roseville av., Newark
Zweigel, I., 816 S. 15th st., Newark

Honorary Members.

McEwen, Floy, Newark

Transferred.

Toal, Helene, to Bergen County
Bellott, Jas. A., to Pennsylvania
Zweigel, I., received from Louisiana
McKiernan, Rob't L., received from Middlesex Co.
Simonson, Louis, received from Connecticut

Number of members and basis of representation, 616.

*Deceased.

GLOUCESTER COUNTY. (8)

Society organized December, 1818. Meets third Wednesday from November to June. Annual meeting in November.

President.

Ulmer, Chester I., Gibbstown

Vice-President.

Nelson, Harry, Woodbury

Secretary and Treasurer.

Hollinshed, Ralph K., Westville

Reporter.

Diverty, Henry B., Woodbury

Censors.

Hunter, James, Jr., Chairman, Westville
Campbell, Duncan, Woodbury
Stout, Harry W., Wenonah

Ashcraft, Samuel F., Mullica Hill
Black, Alan B., Clarksboro
Brewer, William, Woodbury
Burkett, W. J., Pitman
Buzby, Benjamin F., Swedesboro
Campbell, Duncan, Woodbury
Carpenter, William H., Woodbury
Chalfant, H. Bailey, Pitman
Clements, William R., Woodbury
Diverty, Henry B., Woodbury
Downs, Elwood E., Swedesboro
Fisler, C. Frank, Clayton
Fooder, Horace M., Willlamstown
Hillegas, E. J., Mantua
Hollinshed, Ralph K., Westville
Hunter, James, Jr., Westville
Knight, I. Warner, Pitman
Livengood, B. A., Swedesboro
Lummis, Marshal F., Pitman
Nelson, Harry, Woodbury
Palen, Gilbert J., Woodbury
Pedrick, Charles D., Glassboro
Pedrick, William, Glassboro
Pegau, Paul, Woodbury
Sheets, C. C., Paulsboro
Sickel, Harry L., Woodbury
Sinexson, Henry L., Paulsboro
Stewart, Irving J., Swedesboro
*Stilwagon, Philip E., Bridgeport
Stout, Harry Wilson, Wenonah
Ulmer, Chester I., Gibbstown
Underwood, J. Harris, Woodbury
Wood, Oram A., Paulsboro

Honorary Members.

Hallowell, Madeline A., Atlantic City

Number of members and basis of representation, 32

HUDSON COUNTY. (9)

Society organized October 11, 1851. Meets the first Tuesday in every month. Annual meeting in May.

President.

Swecney, William J., Union City

Vice-President.

Jaffin, Abraham E., Jersey City

Secretary.

Perlberg, Harry J., Jersey City

Treasurer.

Kelley, Charles B., Jersey City

Reporter.

Marshak, M. I., Bayonne

Censors.

Alexander, Hugo, 1029 Garden st., Hoboken
Luippold, E. J., Weehawken
Williamson, W. L., Bayonne

Adams, Samuel, 29 Highland av., Jersey City
Adler, Joseph, 933 Ave. C., Bayonne
Africano, S., 4246 Hudson Blvd., Union City
Ainsley, H. Bryson, 1969 Hudson Blvd., Jer. City
Alexander, Hugo, 1029 Garden st., Hoboken
Allen, Isaac L., 521 Palisade av., Union City
Aria, Michael, 497 Mercer st., Jersey City
Arlitz, William J., 107 Newark st., Hoboken
Ash, Arthur F., 710 Boulevard East, Weekawken
Auriemma, Michael, 419 Adams st., Hoboken
Axford, W. H., 840 Boulevard, Bayonne
Bailyn, Emanuel, 331 16th st., West New York
Ballinger, Reeve L., 659 Kearny av., Arlington
Banach, Leon, 2747 Boulevard, Jersey City
Barbarito, William N., 2671 Boulevard, Jer. City
Barishaw, S. B., 5 Bentley av., Jersey City
Baechler, Jules, 439 16th st., West New York
Ben-Asher, Solomon, 277 Bergen av., Jersey City
Bender, Max, 327 23rd st., Union City
Benjamin, Harold C., 59 Crescent av., Jersey City
Benson, J. J., 432 14th st., West New York
Berlin, J. I., 9 Gifford av., Jersey City
Blanchard, O. R., 37 Clinton av., Jersey City
Blakeley, Abram P., 475 Jersey av., Jersey City
Borshaw, Hyman, 1818 Boulevard, Jersey City
Bortone, Frank, 2765 Boulevard, Jersey City
Boselli, Emile H., 614 15th st., Union City
Botti, John A., 236 Summit av., Jersey City
Bowen, Horace, 2787 Boulevard, Jersey City
Bowyer, Frank F., 50 Gifford av., Jersey City
Brady, Thos. S., 678 Ave. C, Bayonne
Brandenberg, Leo W., 4620 Boulevard, Union City
Braunstein, S. C., 424 13th st., West New York
Braunstein, Wm. P., 648 Hudson av., Union City
Brennock, Thos. McG., 3 Webster av., Jersey City
Brick, G. J., 43 Cottage st., Jersey City
Brinkerhoff, H. H., 126 Jewett av., Jersey City
Broesser, H. V., Hoboken Bank for Savings, Hob'n
Brooke, W. W., 915 Ave C, Bayonne
Brophy, Francis X., 51 Kensington av., Jer. City
Brozdowski, John J., 554½ Jersey av., Jer. City
Bruder, A. J., 344 Fairmount av., Jersey City
Campana, Francis A., 412 N. Y. av., Union City
Cannon, Edw. A., 5362 Hudson Blvd., N. Bergen
Caridi, Salvatore, 331 34th st., Woodcliff
Carr, Mary B., 1 Astor pl., Jersey City
Cassidy, John M., 1913 Blvd., Jersey City
Chapman, E. J., 203 Danforth av., Jersey City
Chayes, Sidney, 980 Ave C, Bayonne
Child, Frank M., 1222 Bloomfield st., Hoboken
Choffy, Sylvester A., 160 Bldwell av., Jersey City
Clark, Chas. Eugene, 474 Bramhall av., Jer. City
Cobham, James L., 78 Brinkerhoff st., Jersey City
Cody, Harry C., 283 Ave. C, Bayonne
Cohen, Harry F., 660 Jersey av., Jersey City
Cohen, Herman, 489 Jersey av., Jersey City
Cohen, Herman N., 714 Park av., Hoboken
Commorato, J. R., 262 Montgomery st., Jer. City

HUDSON COUNTY.—Continued.

Comora, Herman, 317 16th st., West New York
Connell, Emmet J., 174 Virginia av., Jersey City
Connell, J., 977 Summit av., Jersey City
Connell, John N., 55 Lincoln st., Jersey City
Connolly, Thos. W., 921 Bergen av., Jersey City
Conty, Anthony J., 318 48th st., Union City
Cosgrove, Samuel A., 254 Union st., Jersey City
Coughlin, T. F., 1006 Park av., Hoboken
Cracco, Fred A., 51 Palisade av., Union City
Craig, Burdette P., 15 Exchange pl., Jersey City
Creveling, Earle L., Reno, Nevada, Box 226
Cropper, Chas. W., 2540 Boulevard, Jersey City
Culver, Geo. M., 25 Glenwood av., Jersey City
Culver, S. Herbert, 75 Magnolia av., Jersey City
Curtis, Grant P., 312 36th st., Union City
D'Acierno, P., 346 Palisade av., Union City
Daly, Bert, 151 Ave C, Bayonne
Daly, E. J., 921 Bergen av., Jersey City
Davey, Thomas N., 41 West 33rd st., Bayonne
Decker, Clinton L., 40 S. Kingman rd., S. Orange
DeMeritt, C. L., 1225 Bloomfield st., Hoboken
Denis, Louis A., 315 Monastery pl., Union City
DeStanley, Percy, 810 Broad st., Newark
Dexter, Harriet E. T., 903 Ave. C, Bayonne
Dickinson, Gordon K., 280 Montgomery st., J. City
Dillingham, W. I., 431 15th st., West New York
Dinglestedt, R. H., 68 Hudson st., Hoboken
Dolan, Andrew J., 26 Warner av., Jersey City
Dolganos, Moses, 862 Ave. C, Bayonne
Dolmatch, A., 783 Boulevard, Bayonne
Donohoe, L. F., 140 West 8th st., Bayonne
Doran, Wm. G., 921 Bergen av., Jersey City
Draesel, Chas., 509 Highpoint av., Union City
Duckett, Warren J., 2600 Boulevard, Jersey City
Dukes, H. R., 220 Kearny av., Kearny
Eckes, Joseph, 199 Hancock av., Jersey City
Eckert, William, 46 Palisades av., Union City
Edgar, Joseph A., 71 Congress st., Jersey City
Evans, James L., 893 Park av., Woodcliff
Facciolo, Frank, 562 Boulevard, Bayonne
Faison, John B., 45 Glenwood av., Jersey City
Farr, J. C., 75 10th st., Hoboken
Fauquier, Leonard B., 204 Arlington av., Jer. City
Feit, Herman, 5 Bentley av., Jersey City
Fellman, M., 6 Baldwin av., Jersey City
Ferenczi, Louis J., 33 Edwards st., Bayonne
Ferguson, C. C., 89 Van Reypen av., Jersey City
Feury, Fred'k N., 50 Glenwood av., Jersey City
Fifer, Wm. T., 748 Ave. C, Bayonne
Finke, Chas. H., 317 York st., Jersey City
Finn, Frederick A., 921 Bergen av., Jersey City
Flaherty, M. E., 36 Glenwood av., Jersey City
Forman, A. C., 41 W. 32nd st., Bayonne
Forman, H. S., 640 Bergen av., Jersey City
Frank, Morris, 920 Ave. C, Bayonne
Franklin, I. Harold, 191 Palisade av., Jersey City
Franklin, Louis, 191 Palisade av., Jersey City
Friele, Wm., 25 Tonnele av., Jersey City
Frundt, Oscar C., 92 Bartholdi av., Jersey City
Gille, Hugo, 149 Congress st., Jersey City
Ginsberg, George, 624 Bloomfield av., Hoboken
Goldberg, E. H., 238 Kearny av., Kearny
Gonzales, W. G., 638 Hudson st., Hoboken
Good, George, 949 Park av., Union City
Gordon, I. L., 1815 Boulevard, Jersey City
Goudy, E. S., 187 Kearny av., Kearny
Gould, J. H., 696 Ave C., Bayonne
Granelli, M. S., 68 Hudson st., Hoboken
Greene, Albert D., 195 Palisade av., Union City
Greissinger, Karl, 422 20th st., West New York
Halligan, Earl J., 254 Montgomery st., Jersey City
Halpern, Sophia L., 271 Palisade av., Union City
Hamill, P. J., 50 Journal Square, Jersey City
Hardenberg, D. S., 347 Communipaw av., J. City
Harris, Charles M., 501 Bergen av., Jersey City
Harter, Louis F., 174 Bowers st., Jersey City
Hartwell, H. A., 4 Clinton ter., Weehawken
Harvey, John W., 40 W. 35th st., Bayonne
Haskin, Arthur P., 318 Montgomery st., Jer. City
Heilbrunn, Julius, 2787 Boulevard, Jersey City
Heintzelman, B. S., 19 W. 33rd st., Bayonne
Hekimian, J. H., 468 Palisade av., Weehawken
Hernandez, Manuel, 1974 Hudson Blvd., Jer. City
Herradora, J. R., Hud. Co. Tbc. San., Secaucus
Higgins, G. L., 175 Ocean av., Jersey City
Higgins, Thomas A., 565 Summit av., Jersey City
Hill, William F., 108 Grand st., Jersey City
Hoening, Charles L., 928 Hudson st., Hoboken
Hoffman, P., 2683 Boulevard, Jersey City
Holloway, J. Morgan, 633 Bergen av., Jersey City
Hommell, P. E., 689 Bergen av., Jersey City
Hoops, Harold J., 167 Ege av., Jersey City
Hunt, J. Jay, 997 Ave. C, Bayonne
Introcaso, D. A., 45 Crescent av., Jersey City
Jacks, Oscar, 476 Mercer st., Jersey City
Jacques, J. Eugenia, 74 Waverly st., Jersey City
Jaffin, A. E., 41 Emory st., Jersey City
Jentz, John H., 980 Summit av., Jersey City
Jones, J. M., 295 Prospect st., Ridgewood
Justin, Arthur W., 41 Fulton st., Weehawken
Justin, J. Clement, 1074 Dearborn rd., Palisade
Kearney, John V., 372 Bergenline av., Union City
Keegan, Thos. D., 135 Arlington av., Jersey City
Keene, J. Jay, 1880 Ocean av., Brooklyn, N. Y.
Keeney, J. C., 1201 Park av., Hoboken
Kelley, Chas. B., Trust Co. of N. J. Bldg., Jer. City
Kelly, Bernard S., 1954 Boulevard, Jersey City
King, Geo. W., Hud. Co. Hos. for Insane, Secaucus
Klaus, Henry, 435 Palisade av., Union City
Klugman, Louis W., 375 Avenue C, Bayonne
Kolb, J. M., 725 Syms st., Union City
Kooperman, B., 321 16th st., West New York
Koppel, Joseph, 921 Bergen av., Jersey City
Koppel, Leo A., 921 Bergen av., Jersey City
Kresch, Philip, 42 W. 22nd st., Bayonne
Kuehne, Richard, 1118 Summit av., Jersey City
Kuhlmann, Alvin E., 527 37th st., Union City
Lambert, F. E., 157 Ocean av., Jersey City
Lange, Louis C., 20 Clifton ter., Weehawken
Larkey, Charles J., 700 Ave. C, Bayonne
Lawsing, G. Condi, 443 22nd st., West New York
Leining, Albert, 1 4th st., Weehawken
Lemmerz, Theodore H., 141 Magnolia av., Jer.City
Levine, Israel, 106 Bowers st., Jersey City
Lewis, Livingston L., 712 Washington st., Hoboken
Limeburner, C. A., 95 Linwood av., Ridgefield
Linden, Mortimer H., 45 Clendenny av., Jer. City
Lindenbaum, H., 2707 S. Norm'die, L. Angeles, Cal.
Lipshutz, Ben, 16 W. 22nd st., Bayonne
Londrigan, Jos. F., 327 Washington st., Hoboken
Long, Miles T., 266 Monticello av., Jersey City
Luippold, E. J., 85 Col. ter., Weehawken
Lupin, Edward E., 727 Ave. C, Bayonne
Lynch, Roland J., 93 Fairview av., Jersey City
Mackey, Margaret, 211 Arlington av., Jersey City
Madden, Wm. L., 30 Kensington av., Jersey City
Magner, James P., 726 Ave. C, Bayonne
Magner, James P., 726 Ave. C, Bayonne
Maras, Peter E., 80 Tonnele av., Jersey City
Mallalieu, Frank W., 16 Monticello av., Jer. City
Markowitz, Irwin, 2157 Boulevard, Jersey City
Marshàk, Martin I., 679 Ave. C, Bayonne
Martzowka, W. P., 1190 Paterson pl. rd., Secaucus
Mathews, Wm. J., 938 Hudson st., Hoboken
Maturo, V. E., 816 Boulevard, Bayonne
Maver, Wm. W., 532 Bergen av., Jersey City
McDede, J. Searle, 215 Ege av., Jersey City
McDonald, F. R., 345 Communipaw av., Jer. City

HUDSON COUNTY.—Continued.

McLean, Herbert E., 92 Fairview av., Jersey City
McLean, Hugh A., 414 17th st., West New York
McLean, John J., 92 Fairview av., Jersey City
McLoughlin, Frank J., 558 Jersey av., Jersey City
McNenney, Claude E., 113 Fairview av., Jer. City
Mead, Walter G., 699 Kearny av., Arlington
Mendelsohn, Lewis, 272 Montgomery st., Jer. City
Mersheimer, Christ. H., 15 Reservoir av., Jer. City
Meyer, Wm., 436 New York av., Union City
Meyerson, Noah, 428 15th st., West New York
Miller, M. H., 311 16th st., West New York
Miner, Donald, 921 Bergen av., Jersey City
Monoghan, William J., Secaucus
Morley, Grace C., 1000 Hudson st., Hoboken
Morris, D. G., 11 E. 22nd st., Bayonne
Mount, Elmer M., 76 Sherman pl., Jersey City
Mueller, George H., 102 Summit av., Jersey City
Murphy, Leo J., 374 West st., Union City
Murphy, James M., 2753 Boulevard, Jersey City
Muttart, George W., 702 Ocean av., Jersey City
Mutter, Alfred A., 75 Beech st., Kearny
Nalitt, David I., 28 W. 33rd st., Bayonne
Nattrass, R. B., 835 Castle Point ter., Hoboken
Nay, Chas. L., 164 Palisade av., Jersey City
Nelson, Aaron, 461 Jersey av., Jersey City
Neves, Charles S., 281 Park av., Montclair
Nevin, Joseph A., 185 Bowers st., Jersey City
Nevin, John, 921 Bergen av., Jersey City
Newman, Abraham J., 42 Sherman pl., Jersey City
Nichols, G. Louis, 723 Washington st., Hoboken
Niemeyer, Chas. V., 4610 Boulevard, Weehawken
Nuse, Edward F., 550½ Jersey av., Jersey City
Ockene, Abraham, 495 Palisade av., Union City
O'Connor, B. A., 314 North 4th st., Harrison
O'Connor, James F., 284 Chestnut st., Kearny
O'Connor, John J., 434 Clinton av., Union City
Oestmann, A. W., 932 Summit av., Jer. City Hgts.
O'Hanlon, George, Jersey City Hosp., Jersey City
Older, Benj., 435 Clinton av., Union City
Olpp, A. E., 412 15th st., Union City
O'Neill, John H., 270 Montgomery st., Jersey City
Opdyke, C. P., 2633 Boulevard, Jersey City
Opdyke, L. A., 55 Clinton av., Jersey City
Oshrin, Henry, 760 Palisade av., West New York
Ovens, R. C., 675 Bergen av., Jersey City
Paganelli, T. R., 1006 Garden st., Hoboken
Pagliughi, J. J., 401 18th st., Union City
Pearlstein, Frank, 325 16th st., West New York
Perkel, Louis L., 3263 Boulevard, Jersey City
Pellarin, John D., 493 Clinton av., Union City
Pentel, Louis S., 307 16th st., West New York
Perlberg, Harry J., 921 Bergen av., Jersey City
Peters, Chas. M., 921 Bergen av., Jersey City
Peters, E. A. P., 394 Bergen av., Jersey City
Peterson, C. A., 921 Washington st., Hoboken
Pindar, David B., 1100 Bloomfield st., Hoboken
Pindar, Fred S., 960 Park av., Woodcliff
Pindar, W. A., 975 Broadway, Woodcliff
Pinkerton, Wm. A., 854 Ave. C, Bayonne
Piskorski, Abdon V., 604 Jersey av., Jersey City
Pollak, B. S., Hud. Co. Tbc. Hos. & San., Secaucus
Polvalski, Alex. W., 320 York st., Jersey City
Pontery, Herbert, 89 Bowers st., Jersey City
Poole, V. T., 72 Edgewater pl., Edgewater
Purdy, Chas. H., 35 Highland av., Jersey City
Pyle, Immanuel, 56 Monticello av., Jersey City
Pyle, Louis A., 89 Fairview av., Jersey City
Pyle, Wallace, 15 Exchange pl., Jersey City
Pyle, Wm. L., 678 Bergen av., Jersey City
Quigley, Frederick J., 4622 Boulevard, Union City
Rector, Joseph M., 681 Bergen av., Jersey City
Reich, S. A., 921 Bergen av., Jersey City
Reid, John W., 1 Kearny av., Kearny
Reingold, Alexander, 221 Garden st., Hoboken
Reitnaeuer, John S., 518 Columbia st., Union City
Rieck, Walter R., 377 Kearny av., Arlington
Rieman, Aloysius, 3504 Hudson Blvd., Jersey City
Riha, Wm. W., 835 Ave. C, Bayonne
Roberts, Edgar W., 760 Palisade av., W. N. Y.
Robbins, Henry B., 144 Mercer st., Jersey City
Rosenberg, Albert B., 1912 Boulevard, Jer. City
Rosenberg, J., 692 Bergen av., Jersey City
Rosencrans, James H., 826 Hudson st., Hoboken
Rosenstein, Jacob L., 568 Bergen av., Jersey City
Rundlett, Emelia V., 79 Prospect st., Jersey City
Ruoff, Andrew C., 494 New York av., Union City
Russell, David L., 690 Bergen av., Jersey City
Sacco, Anthony G., 440 New York av., Union City
Santangelo, Stephen, 3170 Boulevard, Jersey City
Schapiro, Joseph, 712 Palisade av., Union City
Schlein, August, 707 Park av., Hoboken
Schept, Samuel S., 523 37th st., Union City
Schulman, A. S., 4632 Hud. Blvd., Union City
Schunck, Traugott E., 58 9th st., Hoboken
Schurman, E. W., 710 Ocean av., Jersey City
Schwarz, B. T. D., 2801 Hudson Blvd., Jersey City
Schwarz, Henry J., 5560 Hudson Blvd., N. Hudson
Schwarz, W. J. A., 334 7th st., Jersey City
Scott, G. V., 42 Boyd av., Jersey City
Scott, Samuel G., 674 Bergen av., Jersey City
Selinger, S., 413 16th st., West New York
Sesta, Joseph, 284 Montgomery st., Jersey City
Sexsmith, George H., 719 Ave. C, Bayonne
Shapiro, Maurice, 921 Ave. C, Bayonne
Shipman, Frank C., 3663 Boulevard, Jersey City
Shook, B. E., 166 Bergen av., Jersey City
Snyder, J. E. C., 1023 Garden st., Hoboken
Solomon, David, 18 W. 22nd st., Bayonne
Spalding, H. J., 512 45th st., Union City
Spano, Frank, 912 Hudson av., Union City
Spath, George B., 722 Hudson st., Hoboken
Spence, Henry, 123 Fairview av., Jersey City
Sprague, Seth B., 301 York st., Jersey City
Squier, Marcus F., 4 Pleasant pl., Arlington
Steadman, E. T., 107 Christopher st., Montclair
Stein, Jacob M., 68 Columbia ter., Weehawken
Stockfisch, Robt., 3644 Boulevard, Jersey City
Stout, J. P., 165 Jewett st., Jersey City
Street, D. B., 27 Woodlawn av., Jersey City
Stuart, William C., 518 Hudson st., Hoboken
Sullivan, George F., 510 Hudson st., Hoboken
Sullivan, James A., 668 Jersey av., Jersey City
Sullivan, Margaret N., 2600 Boulevard, Jer. City
Sulouff, S. Henry, Rm. 18, Five-Cor. Bldg., J.City
Sweeney, William J., 28 Clifton ter., Union City
Swiney, Merrill A., 325 Ave. C, Bayonne
Tannert, C. H., 331 33rd st., Woodcliff
Tataryan, H., 422 New York av., Union City
Temes, J. Howard, 2280 Boulevard, Jersey City
Terk, A. P., 381 Palisade av., Union City
Thum, Ernest, 819 Ave. C, Bayonne
Tidwell, H. F., 229 16th st., West New York
Timlin, James W., 64 Beech st., Arlington
Tyndall, Hugh H., 83 Highwood ter., Weehawken
Updyke, Fannie B., 31 Second st., Weehawken
Urevitz, Abraham, 495 Clinton av., Union City
von Deesten, Henry T., 268 Palisade av., Hoboken
Vostrosablin, Nicholas A., 121 Grand st., Jer. City
Vreeland, Hamilton, 132 S. Irving st., Ridgewood
Vreeland, William N., 32 Bergen av., Jersey City
Wainwright, J. M. B., 256 Montgomery st., J. City
Ward, Joseph, 780 Broadway, Bayonne
Waters, Edward G., 123 Jewett av., Jersey City
Weber, Walter D., 305 23rd st., Union City
Weehsler, Joseph, 3460 Boulevard, Jersey City
Weiss, M. J., 734 Ave. C, Bayonne
Wheeler, James A., 304 Academy st., Jersey City
White, Hugh M., 901 Summit av., Jersey City

HUDSON COUNTY.—Continued.

White, Thomas J., 221 Union st., Jersey City
Wilkinson, George, 542 Bergen av., Jersey City
Williamson, W. L., 22 West 22nd st., Bayonne
Willis, John, 536 Summit av., Jersey City
Winter, Daniel T., Jr., 8 Gifford av., Jersey City
Woelfle, Henry E., 907 Summit av., Jersey City
*Wolff, Ferd. C., 1109 Garden st., Hoboken
Woodruff, S. R., 16 Enos pl., Jersey City
Yeaton, W. L., 204 11th st., Hoboken
Zenneck, J. F., 38 King av., Weehawken

Resigned.

Gelbach, Wm. R.

Transferred.

Poole, V. T., to Bergen County

Number of members and basis of representation, 362.

*Deceased.

HUNTERDON COUNTY. (10)

Society organized June 12, 1821. Meets third Tuesday in April and October. Annual meeting in October.

President.

Fulper, Theo. B., Hampton

First Vice-President.

Gramsch, Louis A., Glen Gardner

Second Vice-President.

Boyer, Chas. D., Annandale

Secretary.

Salmon, Leon T., Lambertville

Treasurer.

Closson, Edward W., Lambertville

Reporter.

Salmon, Leon T., Lambertville

Censors.

Closson, Edward W., Lambertville
Salmon, Leon T., Lambertville

Apgar, Francis A., Oldwick
Boyer, Charles G., Annandale
Chamberlain, John L., Sergeantsville
Clark, Frank G., White House Station
Closson, Edward W., Lambertville
Coleman, Austin H., Clinton
Decker, Frederick H., Frenchtown
English, Samuel B., Glen Gardner
Fuhrmann, Barclay Stokes, Flemington
Fulper, Theodore B., Hampton
Gramsch, Louis, Glen Gardner
Hamilton, Lloyd A., Lambertville
Harmon, Byron M., Essex Co. Sanitarium, Verona
Harmon, Harry M., Frenchtown
Heil, A. Arling, Milford
Henry, George, Flemington
Lane, Edward M., Boombury
Leaver, Morris H., Quakertown
Low, Frederick C., High Bridge
Rufe, John J., High Bridge
Salmon, Leon T., Lambertville
Thomas, Floyd A., Flemington
Tompkins, Grenelle B., Flemington
Topkins, Isidor T., Califon
Williams, Louis C., Lambertville
*Young, Peter C., Ringoes

Honorary Members.

Sommer, George N. J., Trenton
Wolverton, W. D., U. S. A., Ret., Quakertown

Number of members and basis of representation, 25.

100 Per cent. paid up March 8, 1929.

*Deceased.

MERCER COUNTY. (11)

Society organized May 23, 1848. Meets second Wednesday in each month except July, August and September. Annual meeting in December.

President.

Seeley, Roy B., Trenton

Vice-President.

Vanneman, Joseph S., Princeton

Secretary and Reporter.

Hutchinson, A. Dunbar, Trenton

Treasurer.

North, Harry R., Trenton

Censors.

Sommer, George N. J., Trenton
Craythorn, C. J., Trenton
Schauffler, William G., Princeton

Ackley, David B., 21 N. Clinton av., Trenton
Adams, Chas. F., 34 W. State st., Trenton
Applegate, Edw. T. R., 1125 Greenw'd av., Trenton
Arthur, Francis M., Hamilton Square, N. J.
Ashley, H. H., 192 W. State st., Trenton
Atkinson, Alvan W., 423 E. State st., Trenton
Barrows, Arthur M., 440 Hamilton av., Trenton
Barry, R. G., State Hospital, Trenton
Beairsto, E. B., 495 Pennington av., Trenton
Beatty, Henry M., 50 Centre st., Trenton
Bellis, Horace D., 437 E. State st., Trenton
Belting, Arthur W., Aleda Apartments, Trenton
Bergen, Elston H., 25 Mercer st., Princeton
Berger, Harry, 921 Clinton av., Trenton
Berman, Jacob J., 409 Market st., Trenton
Blackwell, Enouch, Trenton Trust Bldg., Trenton
Blaugrund, Samuel, 553 Broad st., Trenton
Blum, Joseph M., 128 Mill st., Trenton
Bowman, A. K., 272 Nassau st., Princeton
*Carnochan, J. McD., 34 Mercer st., Princeton
Chianese, C. Chester, 461 Hamilton av., Trenton
Child, Florence C., 317 City Hall, Trenton
Cochran, Samuel, Lawrenceville
Collier, Wm. S., 1000 S. Broad st., Trenton
Collins, Henry J., 1160 Hamilton av., Trenton
Comfort, John B., 50 S. Clinton av., Trenton
Connelly, John A., 212 W. State st., Trenton
Corio, Geo. A., 309 Clinton av., Trenton
Corrigan, Patrick H., 1720 Broad st., Trenton

MERCER COUNTY.—Continued.

Costill, Henry B., 371 Hamilton av., Trenton
Cotton, Henry A., State Hospital, Trenton
Cottone, R. J., 683 Princeton av., Trenton
Crane, J. Welling, State Prison, Trenton
Craythorn, Chas. J., 302 W. State st., Trenton
D'Arcy, Walter E., 545 E. State st., Trenton
Davidson, Royden W., 200 W. State st., Trenton
Denelsbeck, J. Otis, 878 E. State st., Trenton
Douress, Philip C., 802 E. State st., Trenton
Epstein, Harry H., 225 Perry st., Trenton
Ernest, Richard B., 240 W. State st., Trenton
Farmer, W. D., Allentown
Fee, Elam K., Main st., Lawrenceville, N. J.
Fell, Alton S., 529 E. State st., Trenton
Frank, G. M., 995 S. Broad st., Trenton
Franklin, C. C., 1109 Hamilton av., Trenton
*Fretz, John H., Greenwood av., Trenton
Friedmann, Leonard L., 486 Princeton av., Trent'n
Fuchs, Jacob N., 836 S. Broad st., Trenton
Funkhouser, Edgar B., State Hospital, Trenton
Gariss, Joseph L., 34 W. State st., Trenton
Gibbs, Jonathan C., 34 Spring st., Trenton
Goldberg, Benjamin M., 1156 E. State st., Trenton
Gordon, Clark H., 808 State st., Trenton
Graham, E. E., Yardsville
Haggerty, Daniel L., 227 N. Warren st., Trenton
Harman, Wm. J., 190 W. State st., Trenton
Higgins, Joseph F., 607 Center st., Trenton
Hutchinson, A. D., 913 W. State st., Trenton
Iams, Samuel H., 34 Mercer st., Princeton
Ivins, Wm. C., 214 E. Hanover st., Trenton
Jaspan, Samuel C., 820 Division st., Trenton
Kent, Morton M., 233 N. Warren st., Trenton
Koplin, Nathan H., 142 W. State st., Trenton
Kuhl, Paul E., 48 N. Clinton av., Trenton
Lavine, Barney D., 630 N. Clinton av., Trenton
Levin, Louis, 140 W. State st., Trenton
Little, William R., Pennington, N. J.
MacDermid, Lynden E., Bordentown
Macfarland, Burr W., Broad St. Bk. Bldg., Trent'n
MacLaren, Wm. S., 35 Boudinot st., Princeton
Madden, Walter F., 324 S. Broad st., Trenton
McCollough, John H., 523 E. State st., Trenton
McDonald, John O., 194 W. State st., Trenton
McGuire, Jas. J., 122 W. State st., Trenton
Means, P. B., State Hospital, Trenton
Mitchell, Chas. H., 1100 W. State st., Trenton
Moore, G. M., Alexandria, Pa.
Moore, Robert H., 86 Beechwood av., Trenton
Mras, J. N., State Hospital, Trenton
North, Harry R., 160 W. State st., Trenton
Oliphant, Nelson B., 152 W. State st., Trenton
O'Rourke, James J., 871 Stuyvesant av., Trenton
Pantaleone, Raffaele, 504 Hamilton av., Trenton
Parker, H. Norton, 72 N. Clinton av., Trenton
Pessel, J. F., 192 W. State st., Trenton
Philips, Robert H. C., 144 W. State st., Trenton
Pierson, Carl L., State Hospital, Trenton
Pierson, Theodore A., Hopewell
Powis, Ethel M., 198 W. State st., Trenton
Proctor, Francis E., 1245 Greenwood av., Trenton
Purcell, Ernest F., 800 Stuyvesant, Trenton
Read, Clinton H., 567 S. Warren st., Trenton
Reddan, Martin W., 126 W. State st., Trenton
Richards, J. N., Pennington
Rogers, Alvin S., 126 N. Warren st., Trenton
Rogers, Lawrence H., Municipal Colony, Trenton
Rogers, W. N., 1235 Brunswick av., Trenton
Rowan, Henry M., 164 W. State st., Trenton
Scammell, Frank G., 40 S. Clinton av., Trenton
Schauffler, Wm. G., 21 Morgan pl., Princeton
Schildkraut, Jacob M., 170 W. State st., Trenton
*Schoening, Gustave A., 148 N. Clinton, Trenton
Seely, Roy B., 78 N. Clinton, Trenton
Seitzick, Hannah E., 733 Hamilton av., Trenton
Shaw, Jos. B., 119 S. Warren st., Trenton
Sica, Samuel, 431 E. State st., Trenton
Sill, John B., 1129 Hamilton av., Trenton
Silver, E. Drew, Hightstown
Silver, George A., Hightstown
Sinclair, Donald B., Princeton
Sinton, John Y., Imlaystown
Sista, Chas. R., 476 Hamilton av., Trenton
Slack, Clarence J., 230 W. State st., Trenton
Smith, Houghton, 1063 S. Clinton av., Trenton
Smith, W. Henly, 128 State st., Trenton
Sommer, Geo. N. J., 120 W. State st., Trenton
Stein, L. A., 205 Market st., Trenton
Stone, R. G., State Hospital, Trenton
Stratton, W. M., 1819 S. Broad st., Trenton
Summers, A. D., Princeton
Swern, Nathan, 130 W. State st., Trenton
Taylor, Walter A., 450 Rutherford av., Trenton
Tooker, Norman B., Princeton
Townsend, I., 140 W. State st., Trenton
Traub, Paul, 27 Richey pl., Trenton
Treiber, Benj. A., 626 Perry st., Trenton
Turner, Irvine F. P., Broad st., Bk. Bldg., Trenton
Vaczi, Stephen, 801 Broad st., Trenton
Van Neste, George V., Hopewell
Vannemen, Joseph S., Princeton
Waters, Chas. H., 126 W. State st., Trenton
Watson, Fred S., 811 Stuyvesant av., Trenton
Watts, Wilbur, 436 E. State st., Trenton
West, Edgar L., 443 E. State st., Trenton
Wiesler, Howard, 491 Centre st., Trenton
Wilbur, William Lane, Hightstown
Williams, Geo. W., 217 N. Warren st., Trenton
Williams, Harry D., 527 E. State st., Trenton
Wright, Howard E., Princeton
Yaeger, Leslie A., 470 Hamilton av., Trenton
Yazujian, Dikran M., 562 E. State st., Trenton
Zandt, Frederick B., Hamilton sq., Trenton

Honorary Members.

Bruyere, Abel T., Trenton
Clark, Wm. A., Trenton
Selbert, Raymond S., Trenton
Armstrong, Alexander, White Haven, Pa.
Simpson, M. S., Titusville

Number of members and basis of representation, 138.

100 Per cent. paid up March 8, 1929.

*Deceased.

MIDDLESEX COUNTY. (12)

Society organized June 16, 1816. Meets third Wednesday in every month except July, August and September. Annual meeting in December.

President.

Hoffman, Florentine, New Brunswick

Secretary and Reporter.

Gutowski, J. M., Perth Amboy

Treasurer.

Johnson, Frank C., New Brunswick

Anderson, John F., 195 College av., N. Brunswick
Applegate, Grov. T., 71 Liv'gston av., N. Brunsw'k

MIDDLESEX COUNTY.—Continued.

Basset, Lavern C., 320 New Market rd., Dunellen
Beekman, Jesse H., Sayerville
Berkow, Samuel G., 138 Market st., Perth Amboy
Brody, Morton S., 84 Bayard st., New Brunswick
Brown, Fred. L., 67 Livingston av., N. Brunswick
Carroll, Edgar, Main st., Dayton
Clark, A. S., 614 Park av., New York City
Clarke, F. M., 47 Paterson st., New Brunswick
Coble, Morris S., 102 Washington st., P. Amboy
Collins, James J., Main st., Woodbridge
Condon, Wm. Jos., 50 Livingston av., N. Brunsw'k
Cottrell, Judson G., 159 Market st., Perth Amboy
Cronk, E. Irving, Livingtson av., New Brunswick
Devan, T. A., University Hosp., Rochester, N. Y.
Ellis, Alfred L., 169 Maple av., Metuchen
Fagan, Jas. L., 419 George st., New Brunswick
Faulkingham, R. J., 61 Liv'gston av., N. Brunsw'k
Feher, L. A. M., 196 Somerset st., N. Brunswick
Fithian, Geo. W., 266 High st., Perth Amboy
Fonelli, Antonio, 469 Lowrie st., Perth Amboy
Forney, Norman N., Main st., Milltown
Gauzza, Valentine P., Fords
Grieve, James, 88 Market st., Perth Amboy
Gruessner, Anth'y, 153 Somerset st., N. Brunswick
Gutmann, Benjamin, 116 Livingston av., N. B'w'k
Gutowski, Jos. M., 338 High st., Perth Amboy
Haight, Harry W., Highland Park, N. Brunswick
Hay, Joseph S., 255 High st., Perth Amboy
Haywood, Harry, 3 Elm Row, New Brunswick
Henry, Frank C., 254 State st., Perth Amboy
Henry, Frank C., Jr., 254 State st., Perth Amboy
Hofer, Clarence A., Metuchen
Hoffman, Florentine M., 91 Bay'd st., N. Brunsw'k
Howley, Barth M., 419 George st., N. Brunswick
Hunt, Melvin M., 16 Jackson st., South River
Johnson, Frank C., 62 Bayard st., N. Brunswick
Karshmer, Nathan, 422 George st., N. Brunswick
*Kemeny, Imre, Carteret
King, Alden P., Milltown
Kinney, Seldon T., 250 Main st., South Amboy
Klein, Edward F., 136 Market st., Perth Amboy
Klein, William, 85 Bayard st., New Brunswick
*Kramer, S. E., 121 Market st., Perth Amboy
Leonard, Geo. F., 63 N. 5th av., New Brunswick
London, William, 256 State st., Perth Amboy
Long, Pauline A., Liv'gston av., New Brunswick
Longbothum, George T., Dunellen av., Dunellen
Lund, John L., 267 High st., Perth Amboy
MacDowell, John L., 112 Market st., Perth Amboy
Mann, Jacob J., 255 State st., Perth Amboy
Mark, Joseph, 102 Green st., Woodbridge
McCormick, Wm. M., 266 Market st., Perth Amboy
McGovern, John F., 24 Livingston av., N.Brunsw'k
McKiernan, Robt. L., 97 Bayard st., N. Brunsw'k
McLeod, N. S., 418 George st., New Brunswick
Meacham, Eugene A., Stevens av., South Amboy
Meinzer, Martin S., 284 Madison av., Perth Amboy
Merrill, Chas. F., Highland Park, N. Brunswick
Messinger, Samuel J., Chrome
Morrison, Daniel L., 92 Carroll pl., N. Brunswick
Nafey, Herbert W., Highland Park, N. Brunswick
Naulty, Chas. W., Jr., 403 High st., Perth Amboy
Pansay, Abraham A., 12 Jackson st., South River
Platt, Thomas H., 208 Dunellen av., Dunellen
Reason, John J., Roosevelt
Riva, Fred S., Milltown
Rona, Maurice, 159 Bayard st., New Brunswick
Rowland, John H., 159 New st., New Brunswick
Runyon, Lawrence P., 82 Somerset st., N. Br'w'k
Saulsberry, C. E., 75 Livingston st., N. Brunsw'k
Scott, Fred W., 103 Bayard st., New Brunswick
Schureman, John P., 92 Bayard st., N. Brunswick
Selover, Sarah E., Main st., South River
Sherman, W. E., George & Schureman, N. Br'w'k
Shull, J. Virgil, 320 High st., Perth Amboy
Silk, Chas. I., 189 Rector st., Perth Amboy
Sirott, Barnett H., 409 State st., Perth Amboy
Slobodien, Benjamin F., 143 Smith st., P. Amboy
*Smith, Arthur L., 62 Bayard st., New Brunswick
Smith, J. Vincent, 463 State st., Perth Amboy
Spencer, Ira T., Main st., Woodbridge
*Steffens, Chas. T., Dunellen
Strandberg, H. L., Carteret
Sullivan, Chas. J., 57 Paterson st., N. Brunswick
Suydam, John L., Church st., Jamesburg
Tyrrell, George W., 380 State st., Perth Amboy
Urbanski, Adrian X., 148 Market st., P. Amboy
Urbanski, Matt. F., 314 Washington st., P. Amboy
Van Dyke, Benjamin S., Cranbury
Voorhees, Howard C., 43 Bayard st., N. Brunswick
Walker, R. B., 1st av., Highland Park, N. Br'w'k
Wantoch, Joseph, Carteret
Weber, J. Francis, 264 Main st., South Amboy
Wetterberg, Louis F., 389 School st., Woodbridge
Wilentz, Wm. C., 188 Market st., Perth Amboy
Wilson, John G., 280 High st., Perth Amboy
Woods, A. Lincoln, Main st., South River

Number of members and basis of representation, 98.

*Deceased.

MONMOUTH COUNTY. (13)

Society organized June 1, 1816. Meets second Wednesday in each month. Annual meeting in December.

President.

Ackerman, James F., Asbury Park

Vice-President.

Fisher, James A., Asbury Park

Secretary.

Featherston, D. F., Asbury Park

Treasurer.

Watkins, Robert E., Belmar

Reporter.

Traverso, Daniel, Belmar

Censors.

Ingling, H. W. Freehold
Hartman, H. W., Keyport
Herrman, Wm. C., Asbury Park
Ackerman, Joseph H., 404 Asbury av., Asbury P'k
Ackerman, Jas. F., 1010 Grand av., Asbury Park
Altschul, Frank Jos., 177 Garfield av., L. Branch
Anderson, William Edgar, Englishtown
Bariscillo, John J., 928 Bangs av., Asbury Park
Beach, Edward M., West Long Branch
*Bennett, R. S., 516 Asbury av., Asbury Park
Beveridge, Wm. W., 1000 Grand av., Asbury Park
Blaisdell, C. Bryon, 48 Norwood av., Long Branch
Brown, Harvey S., Freehold
Brown, Kenneth, Asbury av., Asbury Park
Bryan, Joseph H., 221 Asbury av., Asbury Park
Bulwinkle, Frederick, Atlantic Highlands
Campbell, Wm. K., 69 Third av., Long Branch
Carey, D. S., 16 Court st., Freehold
Cassidy, S. H., Keyport
Clayton, John C., Freehold
DePons, S. C., 112 Broad st., Red Bank
Donovan, William F., Brielle

MONMOUTH COUNTY.—Continued.

Dorr, Henry B., Main av., Ocean Grove
Edelson, Samuel, 1141 Corlies av., Neptune
Fairbanks, Warren H., Freehold
Featherston, Daniel F., 506 4th av., Asbury Park
Fisher, James A., Fitkin Building, Asbury Park
Garrison, B. H., 23 Monmouth st., Red Bank
Gesswein, Carl A., Matawan
Gosling, W. W., 23 Monmouth av., Red Bank
Guillium, Wm. H., 504 Fourth av., Asbury Park
Hartman, H. W., Keyport
Hausman, Sam, Red Bank
Havens, Walter P., Farmingdale
Hepburn, William M., Freehold
Herrman, Wm. G., Fitkin Building, Asbury Park
Holters, Otto R., 515 2nd av., Asbury Park
Ingling, Harry W., Freehold
Jemison, Wm. F., Bradley Beach
Jordan, J. C., Manasquan
Knight, Samuel R., 212 Jersey av., Spring Lake
Leighton, Robt. L., 401 Ludlow av., Spring Lake
Leonard, Lothair L., 615 Asbury av., Asbury Park
Lovett, Irving K., 15 Wallace, Red Bank
Mackenzie, R. A., 501 Grand av., Asbury Park
Makin, J. B., Fitkin Bldg., Asbury Park
Manahan, D. V., Red Bank
Mason, Howard B., Freehold
Moffat, Barclay W., 76 W. Front st., Red Bank
Nichols, Stanley H., Fitkin Building, Asbury Park
Norris, C. A., Manasquan
Opfermann, John L., 112 Broad st., Red Bank
Parry, O. K., Kinmouth Bldg., Asbury Park
Peteler, Alois, Keyport
Pons, C. A., Fitkin Bldg., Asbury Park
Powell, Alfred A., 76 W. Front st., Red Bank
Prout, Chas. D., 414 Sunset av., Asbury Park
Reid, James J., Ocean av., Rumson
Rowland, James J., Highlands
Rullman, Walter A., 58 W. Front st., Red Bank
Sayre, William D., 69 Maple av., Red Bank
Scott, Elmer A., 40 E. Front st., Red Bank
Slocum, Harry B., Bath av., Long Branch
Stewart, Edwin F., Fair Haven
Strahan, F. G., 473 Broadway, Long Branch
Straughan, C. C., 23 Monmouth st., Red Bank
Strauss, Arthur, 137 Pavil av., Long Branch
Tilton, W. S., Asbury Trust Co. Bldg., Asbury P'k
Traverso, Daniel, Belmar
Trippe, Clarence M., 702 Asbury av., Asbury Park
Upham, Helen T., 305 Third av., Asbury Park
Van Mater, John H., 9 2nd av., Atlantic Highlands
Van Oehsen, W. H., Bradley Beach
Villapiano, Jos. G., 10 Mattison av., Asbury Park
Wagner, Earl C., Fitkin Bldg., Asbury Park
Warner, George Van V., 76 E. Front st., Red Bank
Watkins, Robert E., 517 5th av., Belmar
Weiner, J. R., Bangs av., Asbury Park
Wilbur, Franklin L., 504 Asbury av., Asbury Park
Wilbur, G. F., 502 Asbury av., Asbury Park
Wilson, Robert B., 86 Broad st., Red Bank
Wise, Lester D., 119 Morris av., Long Branch

Honorary Members.

Disbrow, Vanderhoff M., Lakewood
Havens, W. P., Farmingdale, N. J.
Wooley, Scudder J., New York City

Number of members and basis of representation, 78.

*Deceased.

MORRIS COUNTY. (14)

Society organized in 1816. Meets the second Tuesday of March, June, September and December. Two or more special meetings during the year. Annual meeting in September.

President.

Mial, L. L., Morristown

Vice-President.

Collins, Lawrence, Greystone Park

Secretary.

Lathrope, George H., Newark

Treasurer.

Emory, George B., Morristown

Reporter.

Curry, Marcus A., Greystone Park

Historian.

Kice, H. W., Wharton

Executive Committee.

The Officers and
Glazebrook, Francis H.
Plume, Clarence A.
Peck, Ellery N.

Abell, Elvira Dean, 190 South st., Morristown
Ackerman, Edward, Dover
Adsit, Noble H., Succasunna
Allaben, Anna L., 165 South st., Morristown
Allen, Fred'k M., Morristown
Baker, August L. L., Dover
Beaver, Jennie Dean, 8 Oliphant Park, Morrist'n
Bird, Frank L., Netcong
Carberry, Edw. T., Wharton
Christian, Thomas B., Greystone Park
Collins, Lawrence M., Greystone Park
Comeau, George, Greystone Park
Costello, William Francis, Dover
Curry, Marcus A., Greystone Park
De Groot, George S., Mendham
Eckhardt, Ralph A., Madison
Emory, George B., 1 Franklin pl., Morristown
Farrow, J. Willard, Dover
Flagge, Frederick W., Rockaway
Foster, George H., Rockaway
Frost, Inglis F., 26 Maple av., Morristown
Gibb, W. Blake, Madison
Gilbertson, R. L., Madison
Glazebrook, Francis H., 6 Altmont ct., Morrist'n
Gordon, Charles D., Mt. Arlington
Gregory, Marie C., Madison
Hann, P. S., 48 W. Blackwell st., Dover
Haven, Samuel C., 14 Elm st., Morristown
Heinig, Frank G., Boonton
Horn, J. Fred'k, South st., Morristown
Hubert, Antonio, Greystone Park
Johnston, J. F., 209 Main st., Chatham
Kice, Henry W., Wharton
Lane, Arthur K., Greystone Park
Larson, Henry M., 36 Franklin st., Morristown
Lathrope, Geo. H., 1019 Broad st., Newark
*Lewis, Alfred A., 12 DeHart, Morristown
McElroy, Ervin, Rockaway
McMurthrie, William A., 26 Maple av., Morrist'n
Mathews, Raymond H., 186 South st., Morristown
McMahon, Bernard C., 183 South st., Morristown
Mial, Leonidas L., 38 Elm st., Morristown
Miller, Thomas B., Butler

MORRIS COUNTY.—Continued.

Miller, Thomas B., Succasunna
Mutchler, H. R., 36 W. Blackwell st., Dover
Owen, Fred W., 18 Franklin pl., Morristown
Peck, Ellery N., Boonton
Pinckney, Frank N., Morristown
Plume, Clarence A., Succasunna
Pollock, James L., Greystone Park
Prager, Bert A., Chatham
Reed, F. Grendon, 52 Hill st., Morristown
Reed, R. Ralston, 65 Washington st., Morristown
Rice, Franklin W., 184 South st., Morristown
Rubin, Henry S., 11 High st., Morristown
Schmitz, Mathias, Denville
Schulman, Robert, Mendham rd., Morristown
Sherman, Byron G., Maple av., Morristown
Smith, Malcolm K., 79 Maple av., Morristown
Smith, Percy L., Greystone Park
Spencer, Alvin, 19 E. Blackwell st., Dover
*Summers, William J., Boonton
Sutphen, E. Blair, 26 Maple av., Morristown
Thomas, Thomas S., 135 South st., Morristown
Truax, Alfred J., Boonton
Voorhies, Wm. S., Mendham
Washburn, Philip C., Greystone Park
Wigg, Cuthbert, 434 Lathrop av., Boonton
Williams, L. E., Madison
Wolfe, W. J., Chatham

Associate Members.

Bishop, Louis F., New York
Emerson, Linn, East Orange
Prout, Thomas P., New York

Honorary Members.

Knight, August, Gladstone
White, Granville, Gladstone

Number of members and basis of representation, 69.

*Deceased.

OCEAN COUNTY. (15)

Society organized October 28, 1903. Meets in May and November at the convenience of the members. Annual meeting in November

President.

Thompson, Theo. F., Lakewood

Vice-President.

Towbin, Adolph, Lakewood

Treasurer.

Brouwer, Frank, Toms River

Secretary.

Woodhouse, Alfred, Toms River

Reporter.

Lawrence, George W., Lakewood

Brouwer, Frank, Toms River
Buermann, Robert, Lakewood
Bunnell, Frederick N., Barnegat
Carrigan, Eugene S., Point Pleasant
Denniston, Frank, Point Pleasant
Disbrow, E. C., Toms River
Disbrow, Harold B., Lakewood
Disbrow, Vanderhoof M., Lakewood
Goldstein, A., Lakewood
Hance, Irwin Howell, Lakewood
Herbener, Eugene G., Lakewood
Jones, Ralph R., Toms River
Lawrence, George W., Lakewood
Lewis, Stewart, Toms River
Lindley, C., 4947 Marathon av., Los Angeles, Cal.
Ripley, Charles D., Point Pleasant
Towbin, Adolph, Lakewood
Woodhouse, Alfred, Toms River

Transferred.

Woodhouse, Alfred, received from N. Hampshire

Honorary Members.

Davis, H. H., Toms River

Number of members and basis of representation, 18.

100 Per cent. paid up March 8, 1929.

PASSAIC COUNTY. (16)

Society organized January 14, 1844. Meets the second Thursday of each month except June, July and August, at the Paterson Health Centre. Annual meeting in October.

President.

Spickers, William A., Paterson

First Vice-President.

Morrell, James P., Paterson

Second Vice-President.

Carlisle, John H., Passaic

Secretary and Reporter.

Ash, Frank W., Paterson

Treasurer.

Giambra, Samuel, Paterson

Censors.

Hagen, Orville R., Paterson
Mitchell, Chas. R., 311 Broadway, Paterson
Tuers, George E., Paterson
Armstrong, Robt. R., 144 Pennington av., Passaic
Ash, Frank W., 108 Carroll st., Paterson
Atkinson, Jas. W., 27 Church st., Paterson
Atwood, Edw. A., 203 Park av., Paterson
Barr, Joseph, 84 Ward st., Paterson
Becker, Leo V., 69 Ward st., Paterson
Bender, Theo. T., 666 Broadway, Paterson
Bergin, Joseph V., 315 Broadway, Paterson
Beshlian, Hagop K., 7 Lee pl., Paterson
Bohl, Louis J., 320 Broadway, Paterson
Bonynge, Henry A., 107 Prospect st., Ridgewood
Botbyl, Bert W., 927 Madison av., Paterson
Boylan, Lawrence B., 630 Main st., Paterson
Brancato, Peter, 17 Church st., Paterson
Brevoort, Henry H., Main st., Lodi
Briody, Henry E., 385 Main st., Paterson
Briody, James F., 385 Main st., Paterson
Butterfield, Arey A., Passaic Nat. Bk. Bldg., Pas'c
Carlisle, John H., 129 Prospect st., Passaic

PASSAIC COUNTY.—Continued.

Carlough, David J., 426 Ellison st., Paterson
Caverly, Fred S., 21 Grove st., Passaic
Chase, W. E., 587 Main st., Passaic
Chester, Saul W., 264 Graham av., Paterson
Ciccone, Anthony C., 389 Grand st., Paterson
Clay, Thomas A., 351 Totowa av., Paterson
Coen, Lawrence E., 305 Clifton av., Clifton
Cogan, Henry, 128 Carroll st., Paterson
Cole, L. Frank, 240 Bloomfield av., Passaic
Colfax, Wm. S., Bartholf av., Pompton Lakes
Connoly, T. Vincent, 84 Ward st., Paterson
Cortese, A. E., 119 Jasper st., Paterson
Cotton, Norman T., 219 Graham av., Paterson
Cremens, John F., 144 Carroll st., Paterson
Crounse, David R., 84 Bloomfield av., Passaic
Davenport, George S., 61 Passaic av., Passaic
Demarest, Fred F. C., 657 Main av., Passaic
Denton, Peter P., 951 Madison av., Paterson
De Yoe, Leon E., 602 Broadway, Paterson
Dingman, N. M., 351 Van Houten st., Paterson
Dingman, Thos. A., 330 Broadway, Paterson
Donohue, Frank B., 389 Main st., Paterson
Drake, Daniel E., Newfoundland
Duncan, Owsley B., 606 E. 22nd st., Paterson
Dunning, Walter L., 533 River st., Paterson
Dwyer, Henry E., 261 Madison av., Passaic
Dwyer, William A., 99 Park av., Paterson
Ekings, Frank P., 221 Broadway, Paterson
Feigenoff, Israel, 420 Broadway, Paterson
Flitcroft, William, 510 River st., Paterson
Flood, G. Balleray, 279 Broadway, Paterson
Giambra, S. M., 666 Broadway, Paterson
Gillson, Hugh V., 21 Lee pl., Paterson
Gillson, John T., 170 Broadway, Paterson
Glasgow, Thomas, 120 Passaic av., Passaic
Gochman, Harry M., 166 Hamilton av., Paterson
Golding, Harry N., 180 Carroll st., Paterson
Gordon, Osher, 114 Prospect st., Passaic
Graham, Arch'd F., 42 Park av., Paterson
Greengrass, Jacob J., 179 Broadway, Paterson
Hagen, Orville R., 266 Van Houten st., Paterson
Hall, W. W., 170 Broadway, Paterson
Harreys, Chas. W., 306 Broadway, Paterson
Henion, Emanuel L., 16 Church st., Paterson
Hollingsworth, H. H., 753 Main av., Clifton
Holmes, Thos. J. E., 151 Fair st., Paterson
Ives, Edward I., Stevens rd., Little Falls
Jacob, William H., 99 N. Main st., Paterson
Jarmulowsky, Harry, 29 Church st., Paterson
Joseph, Morris, 271 Lexington av., Passaic
Kane, Charles J., 349 Grand st., Paterson
Keating, Charles A., 177 Ellison st., Paterson
Keller, Franklin J., 795 Broadway, Paterson
Kiefer, Raymond A., 266 Van Houten st., Paterson
Kim, Gay Bong, 720 Main st., Paterson
Kleiner, Samuel, 162 Hamilton av., Paterson
Lee, Fred P., Department of Health, Paterson
Levendusky, D. E., 52 2nd st., Passaic
Levine, Israel, 215 Broadway, Paterson
Levine, Sidney C., 253 Hamilton av., Paterson
Levinsohn, S. A., 282 Broadway, Paterson
Liefeld, Walter L., 657 Main av., Passaic
Linares, A. C., 402 Market st., Paterson
Lobsenz, Nathan P., 294 Broadway, Paterson
Lomauro, Jas. R., Passaic av. and Grand st., P's'c
Low, Donald B., 529 Broadway, Paterson
Lucas, Henry H., 266 Van Houten st., Paterson
Lucent, S. Bell, Little Falls
Luck, Paul, 74 Lexington av., Passaic
MacAlister, Wm. W., 333 Van Houten st., Paterson
MacGregor, Allen W., 379 Ellison st., Paterson
Maclay, Joseph A., 239 Broadway, Paterson
MacMillan, Wright, 657 Main av., Passaic
McBride, Andrew F., 30 Church st., Paterson
McCamey, Kenneth E., 174 Carroll st., Paterson
McCoy, John C., 292 Broadway, Paterson
McDede, Frank F., 922 Main st., Paterson
McDonald, R. J., 294 Broadway, Paterson
Magennis, Bryan C., 170 Hamilton av., Paterson
Manly, Thomas E., 313 Park av., Paterson
Maps, Howard L., 53 Passaic av., Passaic
Markel, A. G., 320 Broadway, Paterson
Markowitz, Louis, 189 Graham av., Paterson
Marsh, Elias J., 400 Van Houten st., Paterson
Matthews, L. M., 657 Main av., Passaic
Mazzarella, Carlo, 56 Cross st., Paterson
Meier, William, Haskell
Meloney, Lester F., 156 2nd st., Clifton
Mendelsohn, David H., 146 Broadway, Paterson
Meneve, Alfred D., 87 Bridge st., Paterson
Michela, Lugi S., 206 Carroll st., Paterson
Mills, Alvah V., Lindsley rd., Little Falls
Mitchell, Charles R., 311 Broadway, Paterson
Morrill, James P., 310 Broadway, Paterson
Murn, Charles J., 48 Smith st., Paterson
Neer, Frank Y., 127 Broadway, Paterson
Neer, William, 245 Broadway, Paterson
Norval, William A., 419 Main st., Paterson
Nye, Howard H., 174 Broadway, Paterson
O'Grady, Thomas F., 374 Grand st., Paterson
Okin, I., 23 Passaic av., Passaic
Oram, Joseph H., 495 Broadway, Paterson
*Parke, Henry, 9 Church st., Paterson
Pelusio, August N., 125 E. 16th st., Paterson
Phelps, James, 238 Park av., Paterson
Piller, Jacob, 170 Broadway, Paterson
Polizotti, J. L., 193 Park av., Paterson
Polowe, D., 555 E. 22nd st., Paterson
Rauschenbach, Paul E., 223 Broadway, Paterson
Reyes, E., 32 Monroe st., Passaic
Reynolds, Earl C., 657 Main av., Passaic
Reynolds, Harry C., 657 Main av., Passaic
Ritter, John J., Butler
Roemer, Jacob, 213 Broadway, Paterson
Roy, Jos. N., 63 17th av., Paterson
Russell, Charles B., 119 Hamilton av., Paterson
Ryan, John N., 158 Lexington av., Passaic
Salzman, Nathan, 306 Broadway, Paterson
Sandt, F. R., 466 Park av., Paterson
Schultz, A. M., 379 Union av., Paterson
Scribner, Charles H., 84 Ward st., Paterson
Shapiro, David, 104 Passaic av., Passaic
Shapiro, Louis G., 375 Broadway, Paterson
Shepard, R. M., 170 Broadway, Paterson
Shipee, David N., Midvale
Shulman, Abraham, 379 Main st., Paterson
Simon, Morris L., 174 Washington pl., Passaic
Slaff, F., 16 Grove st., Passaic
Sloan, Samuel L., 152 Belmont av., Paterson
Spickers, William, 6 Church st., Paterson
Stein, Harry M., 227 W. Broadway, Paterson
Stinson, Richard, 641 E. 18th st., Paterson
Sucoff, Moses C., 158 Hamilton av., Passaic
Surnamer, Isaac, 345 Broadway, Paterson
Sutherland, W. W., 295 Broadway, Paterson
Taber, L. R., 266 Van Houten st., Paterson
Temple, Arthur H., 164 Jefferson st., Passaic
Terhune, Percy H., 171 Paulison av., Passaic
Todd, Francis H., 83 Auburn st., Paterson
Thorne, Wm. P., Main st., Butler
Tuers, George E., 18 Church st., Paterson
Tweddel, George K., 156 Paterson st., Paterson
Udinsky, Hyman J., 29 Passaic av., Passaic
Vanderbeck, Andrew B., 174 Broadway, Paterson
Van Erde, Alfred H., Lafayette av., Hawthorne
Van Orden, Thomas D., Ramapo av., Pompton
Van Riper, A. Ward, 605 Main av., Passaic
Van Schott, G. J., Jr., 245 Lexington av., Passaic

PASSAIC COUNTY.—Continued

Van Urk, Frederick T., 149 Lexington av., Passaic
Van Winkle, John S., 297 Broadway, Paterson
Veenstra, William, 90 Auburn st., Paterson
Vosburg, Fred, 136 Prospect st., Passaic
Vreeland, Ralph J., 44 Church st., Paterson
Walker, Harold G., Everett av., Wyckoff
Walton, Gordon G., 17 Church st., Paterson
Ward, Albert H., 404 Totowa av., Paterson
Warren, D. E., 265 Gregory av., Passaic
*Was, Francois, T. J., 75 E. 16th st., Paterson
Wassing, Hans, 282 Broadway, Paterson
Wenger, H. L., 576 Broadway, Paterson
Wilkinson, Boyd E., 266 Van Houten st., Paterson
Willard, Harry S., 44 Church st., Paterson
Williams, Hiram, 230 Lexington av., Passaic
Winters, Walter M., 288 Broadway, Paterson
Wishnack, Meyer, 318 Broadway, Paterson
Wolfson, H., 330 Broadway, Paterson
Yates, John S., 414 Ellison st., Paterson
Young, Warren H., 41 Lincoln av., Little Falls

Received on Transfer.

McDonald, R. J., from Morris County
Shepard, R. M., from Oklahoma State Society
Wenger, H. L., from Queens County, New York

Number of members and basis of representation, 186.

*Deceased.

SALEM COUNTY. (17)

Society organized May 4, 1880. Meets second Wednesday in October, December, February and April. Social meeting in May Annual meeting in October.

President.

James, William H., Pennsville

Vice-President.

Hummel, L. H., Salem

Secretary and Treasurer.

Green, D. W., Salem

Reporter.

James, William H., Pennsville

Censors.

Fleming, C. L., Pennsgrove
James, W. H., Pennsville
Summerill, John M., Pennsgrove

Bramble, Halsey S., Elmer
Church, F. H., Salem
Davies, G. A., Elmer
Davis, Richard M. A., Salem
DeGrofft, Eugene E., Woodstown
Ewen, Warren L., Salem
Fleming, Charles Leroy, Pennsgrove
Green, David W., Salem
Hilliard, William T., Salem
Hummel, L. H., Salem
James, William H., Pennsville
Miller, Louis H., Woodstown
Perry, Frank L., Pennsgrove
Sherron, Clifford M., Salem
Summerill, John M., Pennsgrove

Number of members and basis of representation, 15.

SOMERSET COUNTY. (18)

Society organized in May, 1816. Meets second Thursday in October, December, February, April, June and August. Annual meeting in October.

President.

Kay, Clarence R., Peapack

Vice-President.

Lawton, Anderson A., Somerville

Secretary.

Borow, Benjamin, Bound Brook

Treasurer.

Hegeman, Runkle F., Somerville

Reporter.

Ely, Lancelot, Somerville

Censors.

Wild, F. A., Bound Brook
Meigh, Josiah, Bernardsville
Renner, Dan S., Skillman

Allis, Jere A., Basking Ridge
Anderson, John E., Neshanic
Beekman, John B., Bedminster
Borow, Benjamin, Bound Brook
Boulden, Geo. P., Belle Mead
Brittain, Elmer G., Bound Brook
Cooper, J. Howard, East Millstone
Crane, N. T., Bound Brook
Dundon, A. H., N. Plainfield
Ely, Lancelot, Somerville
Field, Frank L., Far Hills
Flint, Edgar, Raritan
Flynn, Thomas H., Somerville
Francis, Adaline M., Somerville
Graff, Effie R., Somerville
Gray, W. B., N. Plainfield
Halsted, Charles F., Somerville
Hegeman, Runkle F., Somerville
Hird, Emerson F., Bound Brook
Kay, Clarence R., Peapack
Knight, Augustus S., Gladstone
Lames, Bart. M., Bernardsville
Lawton, A., Anderson, Somerville
Levy, A., Somerville
Long, William H., Somerville
Lovejoy, J., Bound Brook
Mack, George L., Bound Brook
McConaughy, Francis, Somerville
Meigh, Josiah, Bernardsville
Pogoloff, Samuel H., Manville
Renner, Dan Smith, Skillman
Robinson, John T., Bound Brook

SOMERSET COUNTY.—Continued.

Smalley, Mahlon C., Peapack
Stillwell, Aaron L., Somerville
*Weeks, David F., Skillman
Wild, Frederick A., Bound Brook
Zeglio, Peter J., North Plainfield

Associate Member.

Voorhees, E. R., M. D. C., Somerville

Number of members and basis of representation, 37.

100 per cent. paid up March 8, 1929.
*Deceased.

SUSSEX COUNTY. (19)

Society organized August 22, 1829. Meets third Tuesday in October. Other meetings at convenience of members. Annual meeting in October.

President.

Voorhees, Lamar, Newton

Vice-President.

White, Robert R., Franklin

Treasurer.

Pooley, Thomas R., Jr., Newton

Secretary.

Wilbur, Frederick P., Franklin

Reporter.

Van Gaasbeek, Harvey D., Sussex

Censors.

Voorhees, Lamar, Newton
Coleman, Joseph G., Hamburg
Harp, H. J., Sussex

Beatty, Enos E. B., Newton
Cole, Blase, Newton
Coleman, Joseph G., Hamburg
Drake, L. B., Ogdensburg
Harp, H. J., Sussex
Jacob, Albert N., Sparta
Landis, Edwin W., Stillwater
Morrison, Frederick H., Newton
Pellett, J., Hamburg
Pellett, T. L., Hamburg
Pooley, Thomas R., Jr., Newton
Roy, Bert W., Sussex
Scott, F., Franklin
Smith, Warren H., Newton
Uptegrove, Edward P., Vernon
Van Gaasbeek, Harvey D., Sussex
Voorhees, Lamar, Newton
White, R., Franklin
Wilbur, Frederick P., Franklin

Received on Transfer

Drake, L. H., Ogdensburg, from Passaic County

Honorary Member.

Cole, Martin H., Hainsville

Number of members and basis of representation, 19.

100 Per cent. paid up March 8, 1929.

UNION COUNTY. (20)

Society organized June 7, 1869. Meets second Wednesday of January, April, July and October. Annual meeting in October.

President.

Van Horn, Alfred F., Plainfield

Vice-President.

Bowles, Harry H., Summit

Secretary.

Horre, George W. H., Elizabeth

Treasurer.

Hoover, Alden R., Elizabeth

Reporter.

Shirrefs, Russel A., Elizabeth

Censors.

Schlichter, Charles H., Elizabeth
Hedges, Elis W., Plainfield
Hedges, Benj. VanD., 720 Watch'g av., Plainfield
Wilson, Norton L., 410 Westminster av., Elizabeth

Abel, Henri E., 345 Union av., Elizabeth
Ard, Frank C., 604 Park av., Plainfield
Armstrong, L. B., 206 Ross pl., Westfield
Arthur, Frances H., 156 Chilton st., Elizabeth
Baker, Raymond D., 52 DeFor. av., Summit
Banker, Geo. T., 1060 E. Jersey st., Elizabeth
Barr, A. H., 830 Wood av., Linden
Beisler, Law G., 1528 N. Broad st., Hillside
Bensley, Maynard G., 129 Summit av., Summit
Bishop, Carl, 604 Park av., Plainfield
Blair, T. D., 414 Park av., Plainfield
Bloch, Harry, 200 E. Jersey st., Elizabeth
Blumberg, Jack, 1028 E. Jersey st., Elizabeth
Blythe, Roland P., 115 Walnut st., Cranford
Boozan, Wm. E., 1020 E. Jersey st., Elizabeth
Bowles, Harry H., Overlook Hospital, Summit
Boyes, James G., 1326 Chetwynd av., Plainfield
Breslow, A., 1058 North av., Elizabeth
Brock, Howard F., 417 W. Broad st., Westfield
Brokaw, Chris. A., 628 Newark av., Elizabeth
Brown, L. Greeley, 173 Madison av., Elizabeth
Buck, Abrian O., 19 Pingry pl., Elizabeth
Bunting, P. DuBois, 712 N. Broad st., Elizabeth
Burnett, Thomas F., 121 Court st., Elizabeth
Burritt, Norman W., 364 Springfield av., Summit
Byington, R., Summit
Cantini, Raphael, 147 E. 7th st., Plainfield
Cardinale, Pasquale F., 542 Eliz. av., Elizabeth
Carlin, Edward J., Rahway
Carmen, John H., 602 Crescent av., Plainfield
Cassili, A., Eliz. Gen. Hospital, Elizabeth
Chaiken, Louis, 1024 E. Jersey st., Elizabeth
Chapman, O. P., 3 Prince st., Elizabeth
Childers, Robert J., 604 Park av., Plainfield
Clawson, Marcus L., 420 Park av., Plainfield
Corbusier, Harold D., 612 Park av., Plainfield
Cornwell, F. W., 207 E. 7th st., Plainfield
Cregar, Peter B., 420 Grant av., Plainfield
Currie, Norman W., 508 Central av., Plainfield
Davidson, E. Norwell, 102 Elm st., Linden

UNION COUNTY.—Continued.

Davis, Stanton H., 420 Park av., Plainfield
De Cesare, F. D., 17 W. Clay st., Roselle Park
Decker, Charles T., 215 Prospect av., Westfield
DeFreitas, Clement, 423 W. 4th st., Plainfield
Dennin, Joseph W., 308 Chestnut st., Roselle
Disbrow, G. Ward; 126 Mntn. av., Summit
Donnald, E. Cox, 416 Wood av., Linden
Drury, Alfred J., 3 Westville av., Roselle Park
Durrah, Fred F., 310 Plainfield av., Plainfield
duBusc, L. C. Victor, 476 Jef's'n av., Elizabeth
Eason, S. W., 48 DeForest av., Summit
Eaton, Alvin R., 116 W. Jersey st., Elizabeth
Falvelo, Nicholas, 4 DeForest av., Summit
Farrell, J. A., Int. Health Div., R'kerf'r F., N. Y.
Fitch, Thomas, 916 Park av., Plainfield
Foster, Frank L., 320 Springfield av., W. Cranford
Frohwein, Ida H., 119 Morristown rd., Elizabeth
Funk, Joseph, 615 Elizabeth av., Elizabeth
Galloway, George E., 109 Milton av., Rahway
Gelfer, Isaac, 30 Morris av., Union
Gerendasy, Julius, 956 E. Jersey st., Elizabeth
Gibbs, Alice S., 345 Union av., Elizabeth
Giglio, A. S. V., 230 Christine st., Elizabeth
Gilpin, Friend B., 118 North av., Cranford
Gittleman, Morton, 1028 E. Jersey st., Elizabeth
Glaser, E., 218 Marshall st., Elizabeth
Glass, Benjamin E., 609 Waterbury av., Plainfield
Glasston, H. M., 528 N. Wood av., Linden
Goldfield, Harold H., 225 E. Jersey st., Elizabeth
Goodrich, Stewart L., 19 Vreeland av., Jersey City
Green, James S., 463 N. Broad st., Elizabeth
Griesmier, Zadoc L., 126 3rd av., Roselle
Guidi, Guido M., 212 Christine st., Elizabeth
Hallock, W. J., Berkley Heights, Summit
Hanrahan, Jas. M., 1144 E. Broad st., Elizabeth
Harrison, Joseph B., 302 E. Broad st., Westfield
Hedges, Benj. VanD., 720 Watchung av., Plainfield
Hedges, Ellis W., 720 Watchung av., Plainfield
Henn, Louis D., Watchung av., Plainfield
Higgins, Thomas F., 146 Reid st., Elizabeth
Hoagland, Bonn W., 509 Barron av., Woodbridge
Hoffnan, Chas. D., 720 Watchung av., Plainfield
Holmes, Grace A., 1077 E. Jersey st., Elizabeth
Holtzman, M., 167 Second av., Elizabeth
Hoover, A. R., 5 Prince st., Elizabeth
Horre, Geo. W. H., 960 E. Jersey st., Elizabeth
Hubbard, Harry V., 420 Central av., Plainfield
Hughes, Frederick J., 706 Park av., Plainfield
Imbleau, J. E. L., Morris av., Union
Johnson, Harold F., 915 Kensington, Plainfield
Keeney, Grace P.
Kinch, Fred A., 267 E. Broad st., Westfield
Knauer, George, 930 Elizabeth av., Elizabeth
Korngut, Samuel, 306 First av., Elizabeth
Krans, Clara DeH., 920 Park av., Plainfield
Krans, Edw. S., 920 Park av., Plainfield
Kushner, Alexander, 48 Jacques av., Rahway
Labow, Hyman, 44 Prospect st., Elizabeth
Laird, George S., 127 Central av., Westfield
Lamson, Wm. J., 120 Summit av., Summit
Lamy, Anthony W., 560 Newark av., Rahway
Lance, E. W., 78 W. Milton av., Rahway
Larrabee, C. H., 30 Beechwood rd., Summit
Lathrop, Frederick W., 507 Park av., Plainfield
Lawrence, Wm., Jr., 129 Summit av., Summit
Leggett, Lindley H., Jr., 330 E. Broad st., Westf'd
Leggett, Thos. H., Jr., 706 Park av., Plainfield
Lerman, Irving, 1024 E. Jersey st., Elizabeth
Lippard, Alvin T., 209 Hollywood av., Hillside
Livengood, Horace R., 587 Westminister av., Eliz.
Lufburrow, Chas. B., 441 W. Front st., Plainfield
Malatesta, Chas. S., 720 Watchung av., Plainfield
Marone, Carmine R., 648 First av., Elizabeth
McCallion, W. H., 33 Prince st., Elizabeth
McElhinney, Dennis R., 110 W. Jer. st., Elizabeth
Mentzer, C. A., 1444 N. Broad st., Hillside
Moister, Roger W., 7 Norwood av., Summit
Montfort, Robt. J., 1051 E. Jersey st., Elizabeth
Morris, Thos. M., 124 Watchung av., Plainfield
Morris, Watson B., Springfield
Mravlag, Victor, 1064 E. Jersey st., Elizabeth
Munger, Ray T., 609 Watchung av., Plainfield
Newman, Louis G., 316 E. Broad st., Westfield
Nittoli, Rocco M., 660 E. Jersey st., Elizabeth
Oakes, Alfred E., 1158 Mary st., Elizabeth
Orton, George Lee, 98 Elm st., Rahway
Paulson, Arch. M., 160 E. 7th st., Plainfield
Perkins, James L., 18 Alden st., Cranford
Pierson, Henry C., 530 Locust st., Roselle
Polk, Charles C., 417 W. Broad st., Westfield
Pratt, C. Howard, 411 E. 5th st., Plainfield
Prout, Thos. P., 19 Prospect st., Summit
Quinn, Stephen T., 326 S. Broad st., Elizabeth
Ramsay, Murray E., 221 Lenox av., Westfield
Randolph, John M., 131 Main st., Rahway
Rayne, J. Edw., 16 Cherry st., Elizabeth
Reich, Jerome J., 135 Maple av., Newark
Reiner, Jacob, 517 No. Broad st., Elizabeth
Reiter, Walter A., 50 DeForest av., Summit
Ripps, Maurice L., 331 Elmora av., Elizabeth
Robertson, Grace M., 820 2nd pl., Plainfield
Robinson, Moe, 1014 E. Grand st., Elizabeth
Runnels, John E., B. B. Sanatorium, Scotch Plains
Salvati, Leo H., 180 Elm st., Westfield
Savoye, Rich. G., 115 Central av., Westfield
Schenk, Jos. R., 508 Central av., Plainfield
Schlichter, Chas. H., 556 N. Broad st., Elizabeth
Sell, Frederick W., 166 Irving st., Rahway
Shangle, Milt A., 34 Prince st., Elizabeth
Shirrefs, Rus. A., 55 Broad st., Elizabeth
Silverman, Theo. M., 105 Elmora av., Elizabeth
Sinson, Archibald, 535 Westfield av., Elizabeth
Sisserson, W. W., 425 Summit av., Westfield
Smith, Wm. R., 42 Westfield av., Roselle Park
Spencer, Geo. T., 1101 E. Jersey st., Elizabeth
Stanton, Nath. B., Grant av., Plainfield
Steele, Stephen, 500 Wood av., Linden
Stein, Emil, 607 Park av., Elizabeth
Stein, Isadore, 210 Elizabeth av., Elizabeth
Stein, Martin H., 163 Second st., Elizabeth
Stern, Arthur, 224 E. Jersey st., Elizabeth
Strickland, Geo. W., 123 First av., Roselle
Strom, A., 410 N. 7th st., Plainfield
Stuart, J. Earle, 552 E 2nd st., Plainfield
Tidaback, John D., 52 Beauvoir av., Summit
Turner, Wm. F., 519 Magie st., Elizabeth
Upham, Chas. E. H., 399 Westfield av., Westfield
Vail, Jas. Lindley, 24 Holly st., Cranford
Van Horn, Alfred F., 514 Central av., Plainfield
Vinciguerra, Michael, 1071 Eliza. av., Elizabeth
Vogel, H. Austin, Eliz. Gen. Hospital, Elizabeth
Wade, Simeon F., 555 Newark av., Elizabeth
Wagner, Otto, 111 Stiles st., Elizabeth
Walsh, Ronald J., 323 Chestnut st., Roselle
Walsh, Thos. J., 240 S. Broad st., Elizabeth
Ward, Leo J., 137 E. Jersey st., Elizabeth
Warncke, Frank H., 525 Westfield av., Elizabeth
Wegryn, Louis S., 250 First av., Elizabeth
Weigel, Edgar Wm., 727 Watchung av., Plainfield
Weigel, Elmer P., 503 Park av., Plainfield
Williams, Frank A., 260 W. Jersey st., Elizabeth
Wilson, Norton L., 410 W'tm'ster av., Elizabeth
Woody, McIver, Standard Oil, 26 B'way, N. York
Yood, Rapheal, 410 Grant st., Plainfield

Resigned.

Meyers, Francis S., to join Essex County Society

Number of members and basis of representation, 184.

WARREN COUNTY. (21)

Society organized February 15, 1826. Meets second Tuesday of January, April, July and October. Annual meeting in October.

President.

Hackett, Leon, Washington

Vice-President.

Drake, Paul, Phillipsburg

Secretary.

Osmun, L. C., Hackettstown

Treasurer.

Cummins, G. Wyckoff, Belvidere

Reporter.

Shimer, F. A., Phillipsburg

Censors.

Allen, William C., Blairstown
Bossard, H. P., Phillipsburg
Lyon, C. H., Phillipsburg
Zuck, A. C., Washington

Albertson, William C., Belvidere
Allen, William C., Blairstown
Bloom, Lawrence H., 8 Market st., Phillipsburg
Bloom, George Homer, Phillipsburg
Bossard, Henry B., Phillipsburg
Brasefield, Edgar N., Phillipsburg
Cummins, G. Wyckoff, Belvidere
Curtis, Frank W., Stewartsville
Hackett, Leon, Washington
La Riew, Fred J., Washington
Lyon, Charles H., Phillipsburg
McKinstry, Frank P., Washington
Osmun, Louis C., Hackettstown
Pursell, William Dana, Phillipsburg
Shimer, Floyd A., Phillipsburg
Smith, Charles B., Washington
Wolf, Frank A., Phillipsburg
Woodruff, R. H., Hackettstown

Number of members and basis of representation, 18.

SUMMARY.

Total Membership.

ATLANTIC	114
BERGEN	146
BURLINGTON	44
CAPE MAY	20
CAMDEN	120
CUMBERLAND	45
ESSEX	616
GLOUCESTER	32
HUDSON	362
HUNTERDON	25
MERCER	138
MIDDLESEX	98
MONMOUTH	78
MORRIS	69
OCEAN	18
PASSAIC	186
SALEM	15
SOMERSET	37
SUSSEX	19
UNION	184
WARREN	18
	2384

Counties reporting as many members as were enrolled last year are carried in the 100 per cent. paid up column.

BERGEN
CAMDEN
MERCER
OCEAN
SOMERSET
SUSSEX

New members, paid up for this year.

ATLANTIC	1
BERGEN	11
BURLINGTON	1
CAPE MAY	0
CAMDEN	9
CUMBERLAND	1
ESSEX	35
GLOUCESTER	2
HUDSON	13
HUNTERDON	1
MERCER	2
MIDDLESEX	no r'p't
MONMOUTH	5
MORRIS	6
OCEAN	0
PASSAIC	6
SALEM	0
SOMERSET	1
SUSSEX	1
UNION	14
WARREN	0
	109

Number of deaths reported during the year, 33.

Comparison with year 1928.

Membership in Official List, 1928.....2325
Membership in Official List, 1929.....2384

New members in 1928 report.....151
New members in 1929 report.....109

J. BENNETT MORRISON,
Recording Secretary.

An Alphabetical List of the Members of the Medical Society of New Jersey

Compiled March, 1929

The figures in parenthesis refer to County Societies as follows: (1) Atlantic, (2) Bergen, (3) Burlington, (4) Camden, (5) Cape May, (6) Cumberland, (7) Essex, (8) Gloucester, (9) Hudson, (10) Hunterdon, (11) Mercer, (12) Middlesex, (13) Monmouth, (14) Morris, (15) Ocean, (16) Passaic, (17) Salem, (18) Somerset, (19) Sussex, (20) Union, (21) Warren.
* Deceased.

Abel, Henri E., 345 Morris av., Elizabeth (20)
Abell, Elvira Dean, Morristown (14)
*Abraham, C. F., 85 So. Arlington av., E. O. (7)
Abrams, A. B., 668 Clinton av., Newark (7)
Ackerman, Edward, Dover (14)
Ackerman, James F., 1010 Grand av., Asb. P'k (13)
Ackerman, Joseph H., 404 Asbury av., Asb. P'k (13)
Ackley, D. B., 21 No. Clinton av., Trenton (11)
Adams, Charles F., 34 W. State st., Trenton (11)
Adams, Flora, Hackensack (2)
Adams, John K., 3 Prospect st., East Orange (7)
Adams, Samuel, 29 Highland av., Jersey City (9)
Adler, Joseph, 933 Ave. C, Bayonne (9)
Adsit, Noble H., Succasunna (14)
Africano, S., 4246 Hudson Blvd., Union City (9)
Ainsley, H. Bryson, 1969 Hudson Blvd., Jer. City(9)
Albano, Joseph, 535 No. 7th st., Newark (7)
Albee, Geo. C., 219 S. O. av., South Orange (7)
Albertson, William C., Belvidere (21)
Alexander, Hugo, 1029 Garden st., Hoboken (9)
Alexander, Samuel, Park Ridge (2)
Alexander, W. G., 48 Webster pl., Orange (7)
Allaben, Anna, 165 South st., Morristown (14)
Allen, Frederick, Morristown (14)
Allen, G. Herbert, 181 Roseville av., Newark (7)
Allen, I. E., 521 Palisade av., West Hoboken (9)
Allen, James S., 49 Prospect st., East Orange (7)
Allen, William C., Blairstown (21)
Allen, William J., 114 Park st., Orange (7)
Alling, Frederick A., 12 Central av., Newark (7)
Allis, Jere A., Basking Ridge (18)
Allman, David B., 104 St. Charles pl., Atl. City (1)
Altschul, Frank J., 177 Garfield av., L. Branch (13)
Ambrose, A., 71 Congress st., Newark (7)
Anderson, John E., Neshanic (18)
Anderson, J. F., 195 College av., N. Brunswick (12)
Anderson, Richard D., Burlington (3)
Anderson, Wm. Edgar, Englishtown (13)
Andrews, Clarence L., 101 S. Indiana av.,Atl.Cy.(1)
Angelillo, M. C., 333 Clifton av., Newark (7)
Apgar, Francis Albany, Oldwick (10)
Applegate, E. T. R., 1125 Greenwood, Trenton (11)
Applegate, G. T., 71 Liv'gston st., N. Brunsw'k(12)
Appold, Geo. D., Bergenfield (2)
Ard, Frank C., 604 Park av., Plainfield (20)
Areson, Wm. H., 153 Belvu. av., U. Montclair (7)
Aria, Michael, 497 Mercer st., Jersey City (9)
Arlitz, Wm. J., 107 Newark st., Hoboken (9)
Armstrong, L. B., 206 Ross pl., Plainfield (20)
Armstrong, R. R., 144 Pen'gton av., Passaic (16)
Armstrong, Samuel E., Rutherford (2)
Arthur, Frances H., 156 Chilton st., Elizabeth (20)
Arthur, Francis M., Hamilton Square (11)
Ash, Arthur F., 710 Blvd. East, Weehawken (9)
Ash, Frank W., 108 Carroll st., Paterson (16)
Ashcraft, Samuel F., Mullica Hill (8)
Asher, Maurice, 186 Clinton av., Newark (7)
Ashley, H. H., 192 W. State st., Trenton (11)
Aszody, Paul, 9 Pierce st., Newark (7)
Atkinson, A. W., 423 E. State st., Trenton (11)
Atkinson, Jas. W., 27 Church st., Paterson (16)
Atwood, Edw. A., 203 Park av., Paterson (16)
Auriemma, Michael, 419 Adams st., Hoboken (9)
Avidan, Maurice S., 30 Stratford pl., Newark (7)
Axford, W. Homer, 840 Boulevard, Bayonne (9)
Axilrod, M. H., 2620 Pacific av., Atlantic City (1)

Bachmann, Wm., 87 Hillcrest ter., East Orange (7)
Bacon, Mary, Bridgeton (6)
Baechler, Jules, 439 16th av., West New York (9)
Bagg, Linus W., 31 Lincoln Park, Newark (7)
Bailey, Wilson G., 512 Broadway, Camden (4)
Bailyn, Emanuel, 331 16th st., West New York (9)
Baird, David, Jr., Florence (3)
Baird, Thompson M., 782 Kearny av., Arlington(7)
Baker, August L. L., Dover (14)
Baker, Charles F., 198 Clinton av., Newark (7)
Baker, Hugh H., Vineland (6)
Baker, Maurice E., 1149 Kaighn av., Camden (4)
Baker, Raymond D., 52 De Forest av., Summit (20)
Baldwin, Samuel H., 626 Clinton av., Newark (7)
Ball, Chas. E. A., 153 Valley rd., S. Orange (7)
Ballinger, Reeve L., 659 Kearny av., Arlington (9)
Balson, Zach. D. B., 241 16th av., Newark (7)
Banach, Leon, 2747 Boulevard, Jersey City (9)
Banks, Winifred D., 6 N. Munn av., E. Orange (7)
Banker, Geo. T., 1060 E. Jersey st., Elizabeth (20)
Barb, K. B., Kaighn & Princess avs., Camden (4)
Barbarito, Wm. N., 2671 Boulevard, Jersey City (9)
Barbash, Samuel, 1902 Pacific av., Atlantic City (1)
Bardsley, C. A., Park av., Laurel Springs (4)
Bariscillo, John J., 928 Bangs av., Asbury Park(13)
Barishaw, S. B., 5 Bentley av., Jersey City (9)
Barkhorn, Henry C., 45 Johnson av., Newark (7)
Barnes, William J., Englewood (2)
Barr, A. H., 830 Wood av., Linden (20)
Barr, Joseph, 84 Ward st., Paterson (16)
Barrett, Wesley J., 517 Cooper st., Camden (4)
Barrows, A. M., 440 Hamilton av., Trenton (11)
Barry, R. G., State Hospital, Trenton (11)
Bartlett, Clara K., 4301 Atl. av., Atlantic City (1)
Basset, Lavern C., 320 Newmarket rd.,Dunellen(12)
Bassett, N. L., 117 S. Illinois av., Atlantic City (1)
Bassin, John N., 25 Van Ness pl., Newark (7)
Bateman, Sydney, 10 S. Morris av., Atlantic City(1)
Bates, Chas. A., 919 S. Shore rd., Pleasantville (1)
Bauer, Harry W., Palmyra (3)
Baum, Felix, 138 Clinton av., Newark (7)
Beach, Edward M., West Long Branch (13)
Beairsto, E. B., 495 Pennington av., Trenton (11)
Beardinelli, C. G., 32 Eighth av., Newark (7)
Beatty, Enos E. B., Newton (19)
Beatty, Henry M., 50 Centre st., Trenton (11)
Beaver, Jennie Dean, 8 Oliphant Pk., Morrist'n(14)
Becker, C. Fred, 620 Benson st., Camden (4)
Becker, Fred W., 14 Clinton pl., Newark (7)
Becker, Leo V., 69 Ward st., Paterson (16)
Becket, Geo. C., 350 Springdale av., E. Orange (7)

Beckwith, J. T., 33 S. Indiana av., Atlantic City (1)
Beekman, Jesse H., Sayreville (12)
Beekman, John B., Bedminster (18)
Beggs, Wm. F., 2 Lombardy st., Newark (7)
Beir, I. R., Haverford Apts., Atlantic City (1)
Beisler, Lawrence G., 6 Union av., Irvington (7)
Beling, Chris. C., 109 Clinton av., Newark (7)
Bell, J. Finley, Englewood (2)
Bell, Thomas, 340 Belmont av., Newark (7)
Bellis, Horace D., 437 E. State st., Trenton (11)
Belting, Arthur W., Adela Apts., Trenton (11)
Ben-Asher, Solomon, 277 Bergen av., Jer. City (9)
Bender, Max., 327 23rd st., Union City (9)
Bender, Theo. T., 666 Broadway, Paterson (16)
Benedict, A. C., 121 Irvington av., So. Orange (7)
Benglesdorf, A., 175 Clinton av., Newark (7)
Benjamin, H. C., 59 Crescent av., Jersey City (9)
Bennett, Charles D., 300 Broadway, Newark (7)
*Bennett, R. S., 516 Asbury av., Asbury Park (13)
Bennett, Samuel D., Millville (6)
Bennett, W. F., Essex Co. Sanatorium, Verona (7)
Bensley, Maynard G., Summit av., Summit (20)
Benson, J. J., 432 14th st., West New York (9)
Bentley, D. F., Jr., 403 Cooper st., Camden (4)
Berg, S., 530 Central av., Newark (7)
Bergen, Elston H., 25 Mercer st., Princeton (11)
Berger, Harry, 921 Clinton av., Trenton (11)
Bergin, Joseph V., 315 Broadway, Paterson (16)
Berkow, Samuel G., Perth Amboy (12)
Berlin, Joseph I., 9 Gifford av., Jersey City (9)
Berman, Jacob J., 409 Market st., Trenton (11)
Berner, David, 2817 Pacific av., Atlantic City (1)
Beshlian, Hagop K., Lee pl., Paterson (16)
Beveridge, W. W., 1000 Gerard av., Asbury Pk. (13)
Bewley, L. H., 1209 Pacific av., Atlantic City (1)
Beyer, Othmar J., 42 Laurel av., Irvington (7)
Bianchi, Angelo R., 104 7th av., Newark (7)
Bickner, A. W., Jr., Rutherford (2)
Bien, Frank A., 999 Clinton av., Newark (7)
Bingham, A. W., 219 Harrison st., East Orange (7)
Bird, Frank L., Netcong (14)
Birdsall, Clarence A., 3 Small av., Caldwell (7)
Bishop, Carl, 604 Park av., Plainfield (20)
Bissett, John V., 15 Lombardy st., Newark (7)
Blair, T. D., 414 Park av., Plainfield (20)
Blaisdell, C. Byron, 48 Norwood av., L. Branch(13)
Black, Alan B., Mickleton (8)
Black, LeRoy, Rutherford (2)
Blackbourne, G., 19 Fulton st., Newark (7)
Blackwell, Enoch, Trenton Trust Bldg., Trenton(11)
Blakeley, Abram P., 475 Jersey av., Jersey City (9)
Blakely, Edward W., 232 Ivy Court, Orange (7)
Blanchard, Kenneth, 25 S. Munn av., E. Orange (7)
Blanchard, O. R., 37 Clinton av., Jersey City (9)
Blaugrund, Samuel, 553 So. Broad st., Trenton (11)
Beasby, Charles, Garfield (2)
Bleick, Theodore E., 61 Van Ness pl., Newark (7)
Bleick, Wm. D., 22 Osborne ter., Newark (7)
Bleier, Louis, 31 Lincoln Park, Newark (7)
Bloch, Harry, 200 E. Jersey st., Elizabeth (20)
Bloom, George Homer, Phillipsburg (21)
Bloom, Lawrence H., 8 Market st., Phillipsb'rg(21)
Blum, Jos. M., 128 Mill st., Trenton (11)
Blum, Karl M., 604 Central av., Orange (7)
Blumberg, Jack, 1028 E. Jersey st., Elizabeth (20)
Blythe, Roland P., 115 Walnut st., Cranford (20)
Bogdan, E. A., Smalley ter. & Grove, Irvington (7)
Bohl, Louis J., 320 Broadway, Paterson (16)
Boker, Emory, 544 Springfield av., Newark (7)
Bonynge, H. A., 107 Prospect st., Ridgewood (16)
Bootay, Fred S., 607 Washington av., Belleville (7)
Borrow, Benjamin, Bound Brook (18)
Borshaw, Hyman, 1818 Boulevard, Jersey City (9)
Bortone, Frank, 2765 Boulevard, Jersey City (9)
Boselli, Emile, H., 614 15th st., Union City (9)
Bossard, Henry B., Phillipsburg (21)
Bossert, Chas. L., 707 Pacific av., Atlantic City (1)
Botbyl, B. W., 927 Madison av., Paterson (16)
Botti, John A., 236 Summit av., Jersey City (9)
Boulden, George P., Belle Mead (18)
Bove, Joseph, 306 Lincoln av., Orange (7)
Bowen, Horace, 2787 Boulevard, Jersey City (9)
Bowies, Harry H., Overlook Hospital, Summit (20)
Bowman, A. K., 272 Nassau st., Princeton (11)
Bowyer, Frank F., 50 Gifford av., Jersey City (9)
Boyer, Charles G., Annandale (10)
Boyes, James G., 1326 Chetwynd av., Plainfield(20)
Boylan, Lawrence B., 630 Main st., Paterson (16)
Boyle, Thomas P., 2 Gouverneur st., Newark (7)
Boysen, Theodore, Egg Harbor (1)
Boozan, W. E., 1020 E. Jersey st., Elizabeth (20)
Bradford, Stella S., 16 Seymour av., Montclair (7)
Bradley, Robt. A., 101 S. Ind. av., Atlantic City (1)
Bradshaw, John H., 27 High st., Orange (7)
Brady, Thomas S., 678 Ave. C, Bayonne (9)
Bramble, Halsey S., Elmer (17)
Brancato, Peter, 17 Church st., Paterson (16)
Brandenberg, L. W., 4620 Boulevard, Union City(9)
Branin, Howard S., Millville (6)
Brasfield, Edgar N., Phillipsburg (21)
Braum, Gus A., 391 Bergen st., Newark (7)
Braunstein, S. C., 424 13th st., W. New York (9)
Braunstein, Wm. P., 648 Hudson av., Union City(9)
Bregman, Alexander, Edgewater (2)
Breitstadt, Chas. A., 259 Roseville av., Newark (7)
Brennan, John P., 511 State st., Camden (4)
Brennoch, Thos. McG., 3 Webster av., Jer. City(9)
Breslow, A., 1058 North av., Elizabeth (20)
Brevoort, Henry H., Lodi (16)
Brewer, David R., 536 Market st., Gloucester (4)
Brewer, William, Woodbury (8)
Brick, Benjamin K., Marlton (3)
Brick, G. J., 43 Cottage st., Jersey City (9)
Brien, William M., 449 Main st., Orange (7)
Brim, Anne J. S., 373 William st., East Orange (7)
Brinkerhoff, H. H., 126 Jewett av., Jersey City (9)
Briody, Henry E., 385 Main st., Paterson (16)
Briody, James F., 385 Main st., Paterson (16)
Brittain, Elmer G., Bound Brook (18)
Broadnax, Mary E., 83 Lincoln Park, Newark (7)
Brock, Howard F., 417 W. Broad st., Westfield (20)
Brody, M. S., 84 Bayard st., New Brunswick (12)
Broesser, H. V., H'b'k'n B'k for Sav'gs, H'b'k'n(9)
Brokaw, Chris. A., 628 Newark av., Elizabeth (20)
Brooke, C. R., 13 Pennington st., Newark (7)
Brooke, William W., 915 Ave. C, Bayonne (9)
Brophy, Francis X., 51 Kensingt'n av., Jer. City(9)
Brothers, J. H., 128 Broad st., Newark (7)
Brotman, Morton M., 90 Avon av., Newark (7)
Brown, Chester R., 22 Midland av., Arlington (7)
Brown, C. T., Prudential Ins. Co., Newark (7)
Brown, F. L., 67 Livingston av., N. Brunswick(12)
Brown, Harvey S., Freehold (13)
Brown, J. C., 101 S. Indiana av., Atlantic City (1)
Brown, Jas. S., 43 S. Fullerton av., Montclair (7)
Brown, Kenneth, Asbury av., Asbury Park (13)
Brown, L. G., 173 Madison av., Elizabeth (20)
Brown, Lewis W., 904 Sanford Ave., Irvington (7)
Brown, Richard J., 211 Rosevelle av., Newark (7)
Browning, W. K., 120 N. Centre st., M'rch'ntv'le(4)
Brouwer, Frank, Toms River (15)
Brozdowski, J. J., 554½ Jer. av., Jersey City (9)
Bruder, A. J., 344 Fairmount av., Jersey City (9)
Bruington, S. S., 115 Spruce st., Newark (7)
*Brundage, Philip E., Cresskill (2)
Bryan, Jos. H., 221 Asbury av., Asbury Park (13)
Buck, A. O., 19 Pingry pl., Elizabeth (20)
Buckley, Charles F., Edgewater (2)
Buckley, J. L., 684 Franklin av., Nutley (7)
Buckner, R. W. H., 157 Somerset st., Newark (7)
Buermann, Robert, Lakewood (15)
Buermann, William, 9 Lincoln Park, Newark (7)

Bull, Robert I., 301 Florence av., Newark (7)
Bull, William J., 98 Park st., Montclair (7)
Bulwinkle, Frederick, Atlantic Highlands (13)
Bunn, F. C., 30 Hillyer st., Orange (7)
Bunnell, Frederick N., Barnegat (15)
Bunting, P. DuB., 712 N. Broad st., Elizabeth (20)
Burke, Stephen E., 212 First av., Newark (7)
Burkett, W. J., Pitman (8)
Burne, John J., 17 Gould av., Newark (7)
Burnett, Thos. F., 121 Court st., Elizabeth (20)
Burns, Edward L., 261 Broad st., Newark (7)
Burritt, Norman W., 364 Springf'd av., Summit(20)
Burrows, Garf'ld C., 7804 Ventnor, Margate,A.C'y(1)
Busch, Herman, 38 Johnson av., Newark (7)
Bush, Archer C., 40 Union av., Montclair (7)
Bush, Ralph K., 131 E. Park av., Merchantville (4)
Busicco, P. S., Englewood (2)
Butcher, Charles, Heisleville (6)
Butler, Eustice C., 249 Bloomfield av., Caldwell (7)
Butterfield, A. A., P's'c Nat'l Bk. Bldg., Passaic(16)
Buvinger, Chas. W., 50 Wash'g'n st., E. Orange (7)
Buzby, Benjamin F., Swedeboro (8)
Buzby, B. Franklin, 414 Cooper st., Camden (4)
Byck, Louis, 114 Lyons av., Newark (7)
Byington, R., Summit (20)

Cahill, L. A., 353 Lafayette st., Newark (7)
Caldwell, J. A., 45 S. Mountain av., Montclair (7)
Calhoun, Charles, Rutherford (2)
Calroney, Thos. L., Ridgefield Park (2)
Camche, L. J., 94 Hawthorne av., Newark (7)
Cameron, Ed. A., 186 S. Burnett st., E. Orange (7)
Campana, Francis A., 412 N. Y. av., Union City(9)
Campbell, Duncan, Woodbury (8)
Campbell, H. B., 21 Court st., Newark (7)
Campbell, W. K., 69 3d av., Long Branch (13)
Campbell. Wellington, Short Hills (7)
Cannon, E. A., 5362 Hudson Blvd., N. Bergen (9)
Cantini, Raphael, 147 E. 7th st., Plainfield (20)
Capuano, Giacinto, 829 S. 14th st., Camden (4)
Carberry, Edward T., Wharton (14)
Carbone, Francis R., 157 Hunterdon st., Newark(7)
Cardinale, P. F., 542 Elizabeth av., Elizabeth (20)
Cardwell, E. P., 12 Central av., Newark (7)
Carey, D. S., 16 Court st., Freehold (13)
Caridi, Salvatore, 331 34th st., Woodcliff (9)
Carlin, Edward J., Rahway (20)
Carlisle, John H., 129 Prospect st., Passaic (16)
Carlough, D. J., 426 Ellison st., Paterson (16)
Carman, F. F., 31 Lincoln Park, Newark (7)
Carman, J. H., 602 Crescent av., Plainfield (20)
*Carnochan, J. McD., 34 Mercer st., Princeton (11)
Carpenter, Wm. H., Woodbury (8)
Carr, Mary B., 1 Astor pl., Jersey City (9)
Carrigan, Eugene S., Point Pleasant (15)
Carrington, Wm. J., 905 Pac. av., Atlantic City (1)
Carroll, Edgar, Main st., Dayton (12)
Casale, John B., 200 Highland av., Newark (7)
Casselman, A. J., 301 N. Second st., Camden (4)
Cassidy, John M., 1913 Blvd., Jersey City (9)
Cassidy, S. H., Keyport (13)
Cassili, A., Eliz. Gen. Hosp., Elizabeth (20)
Cater, Doug. A., 55 Harrison st., East Orange (7)
Caverly, Fred S., 21 Grove st., Passaic (16)
Chaiken, Louis, 1024 E. Jersey st., Elizabeth (20)
Chalfant, H. Bailey, Pitman (8)
Chamberlain, A. R., 25 Lenox pl., Maplewood (7)
Chamberlain, John L., Sergeantville (10)
Champlin, Paul M., Maple Shade (3)
Chapman, E. J., 203 Danforth av., Jersey City (9)
Chapman, O. P., 3 Prince st., Elizabeth (20)
Chapman, R. W., 835 Bergen st., Newark (7)
Charlton, C. C., 124 S. Illinois av., Atlantic City (1)
Chase, W. E., 587 Main st., Passaic (16)
Chattin, J. Franklin, 671 Broad st., Newark (7)
Chayes, Sidney, 980 Ave. C, Bayonne (9)
Cherashore, H., 363 Centre st., Nutley (7)
Chesler, Maurice, Conn. & Pac. avs., Atl. City (1)
Chester, Saul W., 264 Graham av., Paterson (16)
Chianese, C. Chester, 461 Hamilton av., Trenton(11)
Chiger, Alex. S., 621 High st., Newark (7)
Child, F. M., 1222 Bloomfield st., Hoboken (9)
Child, Florence C., 317 City Hall, Trenton (11)
Childers, Robt. J., 604 Park av., Plainfield (20)
Chmelnik, A. G., 919 Bergen st., Newark (7)
Choffy, Sylvester A., 160 Bidwell av., Jer. City (9)
Christian, Thomas B., Greystone Park (14)
Church, F. H., Salem (17)
Ciccone, Anthony C., 389 Grand st., Paterson (16)
Ciliberti, Frank J., 5th & Pine sts., Camden (4)
Clark, A. S., 614 Park av., New York City (12)
Clark, Chas. Eugene, 474 Bramhall av., Jer. City(9)
Clark, Ernest B., Westmont (4)
Clark, Frank G., White House Station (10)
Clark, John H., 12 Walnut st., Newark (7)
Clark, S. W., 152 S. No. Carolina av., Atl. City (1)
Clarke, Edward W., West Englewood (2)
Clarke, F. M., 47 Paterson st., N. Brunswick (12)
Clarken, Jos. A., 43 Lincoln Park, Newark (7)
Clawson, Marcus L., 420 Park av., Plainfield (20)
Clay, Thos. A., 351 Totowa av., Paterson (16)
Clayton, John C., Freehold (13)
Clement, L. B., 124 King's Hwy., W. Haddonfield(4)
Clements, William R., Woodbury (8)
Clippinger, R. D., Vineland (6)
Close, J. Fred'k, 78 N. Arlington av., E. Orange(7)
Closson, Edward W., Lambertville (10)
Cobham, Jas. L., 78 Brinkerhoff st., Jersey City (9)
Coble, Morris S., 102 W'sh'ngt'n st., P. Amboy(12)
Cochran, Samuel, Lawrenceville (11)
Cochrane, Cleland D., Closter (2)
Coen, Lawrence E., 24 Washington av., Clifton (16)
Cody, Harry C., 283 Ave. C, Bayonne (9)
Cogan, Henry, 128 Carroll st., Paterson (16)
Coghlan, Jasper, 17 Academy st., Newark (7)
Cohn, Herman, 393 Clinton av., Newark (7)
Cohn, Royal M., 740 Clinton av., Newark (7)
Cohen, Harry F., 660 Jersey av., Jersey City (9)
Cohen, Herman, 393 Clinton av., Newark (7)
Cohen, Herman, 489 Jersey av., Jersey City (9)
Cohen, Herman N., 714 Park av., Hoboken (9)
Cohen, Sidney L., 9 Hillside av., Newark (7)
Cohen, M., 106 Valley rd., Montclair (7)
Cole, Blase, Newton (19)
Cole, L. Frank, 240 Bloomfield av., Passaic (16)
Coleman, Austin H., Clinton (10)
Coleman, Joseph G., Hamburg (19)
Colfax, Wm. S., Barthlof av., Pompton Lakes (16)
Collier, Martin H., Camden Co. Hosp., Lakew'd (4)
Collier, Wm. S., 1000 S. Broad st., Trenton (11)
Collins, H. J., 1160 Hamilton av., Trenton (11)
Collins, Jas. J., Main st., Woodbridge (12)
Collins, Lawrence M., Greystone Park (14)
Colsh, LeRoy, 202 Maplewood av., Maplewood (7)
Comando, Harry N., 31 Lincoln Park, Newark (7)
Comeau, George, Greystone Park (14)
Comfort, John B., 50 S. Clinton av., Trenton (11)
Comora, Herman, 317 16th st., W. New York (9)
Commorato, J. R., 262 Montgomery st., J. City (9)
Conaway, Walt P., 1723 Pac. av., Atlantic City (1)
Condon, John F., 686 Mt. Prospect av., Newark (7)
Condon, Wm. J., 50 Livingston av., N. Bruns. (12)
Cone, Ralph S., Westwood (2)
Conlon, Philip, 25 James st., Newark (7)
Connamacher, H. S., 671 Springfield av., Newark(7)
Connell, John, 977 Summit av., Jersey City (9)
Connell, Emmet J., 174 Virginia av., Jer. City (9)
Connell, John N., 55 Lincoln st., Jersey City (9)
Connelly, J. A., 212 W. State st., Trenton (11)
Conner, Thomas F., Bogota (2)
Connolly, John J., 30 Wallace pl., Newark (7)
Connolly, Richard N., City Hospital, Newark (7)

Connolly, Thos., W., 921 Bergen av., Jersey City(9)
Connolly, T. Vincent, 84 Ward st., Paterson (16)
Connor, Clarence A., Fort Lee (2)
Conoly, J. H., 300 Monmouth st., Gloucester (4)
Conoly, Lacy N., 601 Walnut st., Camden (4)
Conover, E. E., Hasbrouck Heights (2)
Conrad, Edgar K., Hackensack (2)
Conty, Anthony J., 318 48th av., Union City (9)
Cook, Hugh, 443 Broad st., Newark (7)
Cook, Mary, 12 James st., Newark (7)
Cooke, Wm. H., 303 Main st., East Orange (7)
Cooper, Howard M., Rutherford (2)
Cooper, J. Howard, East Millstone (18)
Corbusier, H. D., 612 Park av., Plainfield (20)
Corio, George A., 309 Clinton av., Trenton (11)
Corn, David, Ridgefield Park (2)
Cornwell, Alfred W., Bridgeton (6)
Cornwell, F. W., 207 E. 7th st., Plainfield (20)
Corrigan, Geo. F., 344 Lafayette st., Newark (7)
Corrigan, Patrick H., 1720 Broad st., Trenton (11)
Corsan, Allen, Ocean City (5)
Corson, Elton S., Bridgeton (6)
Corson, Filbert R., 3529 Pacific av., Atl. City (1)
Cortese, A. E., 119 Jasper st., Paterson (16)
Corwin, Theo. W., 671 Broad st., Newark (7)
Cosgrove, Samuel A., 254 Union st., Jersey City (9)
Costello, William Francis, Dover (14)
Costill, Henry B., 371 Hamilton av., Trenton (11)
Cotton, Henry A., State Hospital, Trenton (11)
Cotton, N. T., 219 Graham av., Paterson (16)
Cottone, R. J., 683 Princeton av., Trenton (11)
Cottrell, J. G., 159 Market st., Perth Amboy (12)
Coughlan, Ella A., 10 Oakwood av., Orange (7)
Coughlin, Thos. F., 1006 Park av., Hoboken (9)
Coward, Edwin H., 1423 Pacific av., Atlantic Ctiy(1)
Cox, John C., 187 Maplewood av., Maplewood (7)
Cracco, Fred A., 51 Palisade av., Union City (9)
Craig, Burdette, 15 Exchange pl., Jersey City (9)
Crain, Wm. E., 8 Kings Hwy. W., Mt. Ephraim (4)
Cramer, Alfred J., 211 N. 5th st., Camden (4)
Crandall, John Kenneth, Fort Lee (2)
Crane, Bernard, 306 Pacific av., Atlantic City (1)
Crane, Charles G., 78 Farley av., Newark (7)
Crane, J. Welling, State Prison, Trenton (11)
Crane, N. T., Bound Brook (18)
Crankshaw, C. W., Pru. Ins. Co., Newark (7)
Craster, Chas. V., 381 Parker st., Newark (7)
Crawford, Georgiana V., 28 Carnegie av., E. Or.(7)
Craythorn, C. J., 302 W. State st., Trenton (11)
Crecca, Wm. D., 111 Park av., Newark (7)
Cregar, Peter B., 420 Grant av., Plainfield (20)
Cremens, John F., 144 Carroll st., Paterson (16)
Creswell, Willis W., 48 Warren st., Newark (7)
Creveling, Earle L., Reno, Nevada, Box 226 (9)
Crist, W. A., 725 Coll'gsw'd av., W. Collingswood(4)
Cronk, E. Irving, Livingston av., N. Brunswick(12)
Cropper, Chas. W., 2540 Boulevard, Jersey City (9)
Cropsey, Charles D., Rutherford (2)
Crounse, David R., 84 Bloomfield av., Passaic (16)
Crowe, Aldrich C., Ocean City (6)
Crowley, Jos. W., 4005 Westville av., Camden (4)
Cryder, Millard, Cape May Court House (5)
Culver, Geo. M., 27 Glenwood av., Jersey City (9)
Culver, S. Herbert, 75 Magnolia av., Jersey City(9)
Cummins, G. Wycoff, Belvidere (21)
Currie, N. W., 508 Central av., Plainfield (20)
Curry, Marcus A., Greystone Park (14)
Curtis, Donald, Hackensack (2)
Curtis, Howard C., Moorestown (3)
Curtis, Elb. A., Central av., Newark (7)
Curtis, Frank W., Stewartville (21)
Curtis, Grant P., 312 36th st., Union City (9)
Cuskaden, A. D., 5902 Ventnor av., Ventnor City(1)

D'Acierno, P. A., 346 Palisade av., Union City (9)
D'Agostin, Henry, Cliffside (2)
D'Arcy, Walt. E., 545 E. State st., Trenton (11)
Dalton, S. Eugene, 124 S. Ill. av., Atlantic City (1)
Daly, Bert J., 151 Ave. C, Bayonne (9)
Daly, Edmund J., 921 Bergen av., Jersey City (9)
Dandois, George F., Wildwood (5)
Dane, Charles, 61 Scotland rd., South Orange (7)
Dane, John, 61 Scotland rd., South Orange (7)
Daniell, Arthur, 611 Springdale av., E. Orange (7)
Danzis, Max, 31 Lincoln Park, Newark (7)
Darby, A. Eugene, Ocean City (5)
Darlington, Emlen P., New Lisbon (3)
Darnall, Wm. Edg., P. O. Box 1126, Atlantic City(1)
Daron, S., 61 West st., Newark (7)
Davenport, Geo. S., 61 Passaic av., Passaic (16)
Davenport, Peter B., 764 S. Or. av., Newark (7)
Davey, Thomas N., 41 W. 33rd st., Bayonne (9)
Davies, G. A., Elmer (17)
Davis, Albert B., 511 Cooper st., Camden (4)
Davis, Byron G., 1500 Pac. av., Atlantic City (1)
Davis, Jacob M., Burlington (3)
Davis, Lester R., 59 Chancellor av., Newark (7)
Davis, Richard A., Salem (17)
Davis, Stanton H., 420 Park av., Plainfield (20)
Davis, W. Price, Prof. Arts Bldg., Atlantic City (1)
Davidson, E. Norwell, 102 Elm st., Linden (20)
Davidson, H. S., Prof. Arts Bldg., Atlantic City (1)
Davidson, Louis L., 190 Clinton av., Newark (7)
Davison, R. W., 200 W. State st., Trenton (11)
Day, Grafton E., Frazer & N. J. avs., Coll'gsw'd(4)
Day, Samuel Thomas, Port Norris (6)
Dayton, S. T., Englewood (2)
Decker, Chas. T., 215 Prospect st., Westfield (20)
Decker, Clinton L., 40 S. Kingman rd., S. Orange(9)
Decker, Frederick H., Frenchtown (10)
Decker, Henry B., 527 Penn. st., Camden (4)
De Cesare, F. D., 17 W. Clay st., Roselle Park(20)
De Freitas, Clement, 423 W. 4th st., Plainfield (20)
DeGrofft, Eugene E., Woodstown (17)
DeGroot, George S., Mendham (14)
DeMeritt, Chas. L., 1225 Bloomfield st., Hoboken(9)
DePons, S. C., 112 Broad st., Red Bank (13)
DeStanley, Percy, 810 Broad st., Newark (9)
DeVausney, Winif'd S., 27 Fulton st., Newark (7)
DeYoe, Leon E., 602 Broadway, Paterson (16)
Deibert, Irwin E., 618 Benson st., Camden (4)
Del Deo, Nicholas V., 47½ State st., Newark (7)
Del Duca, Vincent, 919 S. 5th st., Camden (4)
Demarest, F. F. C., 657 Main av., Passaic (16)
Demarest, Lawrence M., 228 S. O. av., So. Or. (7)
Denelsbeck, J. O., 878 E. State st., Trenton (11)
Denes, O., 402 Centre st., Nutley (7)
Denig, Ralph D., Hackensack (2)
Denis, L. A., 315 Monastery pl., Union City (9)
Dennin, Jos. W., 308 Chestnut st., Roselle (20)
Dennis, John, 1739 N. st., N. W., W'hington, D.C.(7)
Denniston, Frank, Point Pleasant (15)
Denton, P. P., 951 Madison av., Paterson (16)
Deriveaux, John A., 103 Clinton av., Newark (7)
Devan, T. A., Univ. Hosp., Rochester, N. Y. (12)
Devlin, Frank, 617 Broadway, Newark (7)
Devlin, Hugh J., 72 Thomas st., Newark (7)
Dexter, Harriet E. T., 903 Ave. C, Bayonne (9)
Dias, Joseph L., 17 Lombardy st., Newark (7)
Dickinson, G. K., 280 Montgomery st., Jer. City (9)
Dickson, John D., Bogota (2)
Diffenbach, R. H., 570 Mt. Prospect st., Newark(7)
Dilger, Fred'k G., 417 Palisade av., Cliffside Pk(9)
Dillingham, W. I., 431 15th st., W. New York (9)
Dinglestedt, R. H., 68 Hudson st., Hoboken (9)
Dingman, N. M., 351 Van Houten st., Paterson (16)
Dingman, Thos. A., 330 Broadway, Paterson (16)
Disbrow, E. C., Toms River (15)
Disbrow, G. Ward, 126 Mountain av., Summit (20)
Disbrow, Harold B., Lakewood (15)
Disbrow, Vanderhoef M., Lakewood (15)
Diverty, Henry B., Woodbury (8)

Dodd, Edw. L., 131 Forest st., Belleville (7)
Dodd, Raymond C., 18 Snowden pl., Glen Ridge (7)
*Dodge, Walter, 361 Cleveland st., Orange (7)
Dolan, Andrew J., 26 Warner av., Jersey City (9)
Dolganos, Moses, 862 Ave. C, Bayonne (9)
Dolmatch, A., 783 Boulevard, Bayonne (9)
Donahue, Wm. J., 173 Roseville av., Newark (7)
Donnald, E. Cox, 416 Wood av., Linden (20)
Donnelly, Robt. J., 26 Wallace pl., Newark (7)
Donoho, Al. P., Walnut & Center, M'chantville (4)
Donohoe, Lucius F., 140 West 8th st., Bayonne (9)
Donohue, Frank B., 389 Main st., Paterson (16)
Donovan, William F., Brielle (13)
Door, Henry B., Ocean Grove (13)
Doran, Wm. G., 921 Bergen av., Jersey City (9)
Doremus, Widmer E., 32 Fulton st., Newark (7)
Dorn, Elliot I., 267 Vassar av., Newark (7)
Douress, P. C., 802 E. State st., Trenton (11)
Dowling, Charles E., 215 Park av., Orange (7)
Downs, Roscius I., Riverside (3)
Downs, Elwood E., Swedesboro (8)
Draesel, Chas., 509 Highpoint av., Union City (9)
Dragonetti, Edvige N., 177 Clifton av., Newark (7)
Drake, Daniel E., Newfoundland (16)
Drake, L. B., Ogdensburg (19)
Drury, Alfred J., 3 Westville av., Roselle Park (20)
Dubell, John E., Columbus (3)
Dubois, M. G., 769 High st., Newark (7)
duBusc, L. C. Victor, 476 Jeff'son av., Elizabeth(20)
Duckett, Warren J., 2600 Boulevard, Jer. City (9)
Dukes, Howard R., 220 Kearny av., Kearny (9)
Dulin, Everett K., 73 N. Arl'g'tn av., E. Orange(7)
Duncan, Owsley B., 606 E. 22nd st., Paterson (16)
Duncker, Frederick W., 15 Court st., Newark (7)
Dundon, A. H., N. Plainfield (18)
Dunham, Henry B., Camden Co. Hos., Lakew'd(4)
Dunlap, Thos. G., 47 Virginia av., Atlantic City (1)
Dunning, Walt L., 533 River st., Paterson (16)
Durham, R. E., Manheim Apts., Atlantic City (1)
Durrah, F. F., 310 Plainfield av., Plainfield (20)
Dwyer, Henry E., 261 Madison av., Passaic (16)
Dwyer, Wm. A., 99 Park av., Paterson (16)

Eagleton, Wells P., 15 Lombardy st., Newark (7)
Eason, S. W., 48 DeForrest av., Summit (20)
Eaton, Alvin R., 116 W. Jersey st., Elizabeth (20)
Eaton, Arthur T., 201 4th av., Haddon Heights (4)
Echikson, Jos. L., 845 S. 12th st., Newark (7)
Eckert, William, 46 Palisade av., Union City (9)
Eckhardt, Ralph A., Madison (14)
Eckes, Joseph, 199 Hancock av., Jersey City (9)
Edelen, James J., 189 Amherst st., E. Orange (7)
Edelson, Samuel, 1141 Corlies av., Neptune (13)
Edgar, Joseph A., 71 Congress st., Jersey City (9)
Edwards, George L., Bogota (2)
Edwards, James B., Leonia (2)
Edwards, Sarah M., 207 Summer av., Newark (7)
Ein, William B., 31 Lincoln Park, Newark (7)
Einhorn, Rosa, 468 Clinton av., Newark (7)
Ekings, Frank P., 221 Broadway, Paterson (16)
Ellis, Alexander, 513 Broadway, Camden (4)
Ellis, Alfred L., 169 Maple av., Metuchen (12)
Ellis, Arthur J., 23 Milford av., Newark (7)
Elliot, Daniel, 44 Bleecker st., Newark (7)
Elmer, Matthew K., Bridgeton (6)
Elwell, Alfred M., 407 Cooper st., Camden (4)
Ely, Lancelot, Somerville (18)
Emerson, Linn, Metropolitan Bldg., Orange (7)
Emmer, S. Wolfe, 234 Clinton av., Newark (7)
Emory, G. B., 1 Franklin st., Morristown (7)
Englander, C., 41 Hillside av., Newark (7)
English, James R., 51 Cypress st., Newark (7)
English, John T., 702 Stuyvesant av., Irvington(7)
English, Samuel B., Glen Gardner (10)
Epler, Don A., 45 Hillside av., Newark (7)
Epstein, Harry H., 225 Perry st., Trenton (11)
Epstein, Henry B., 31 Lincoln Park, Newark (7)
Erler, Eugene W., 119 No. 5th st., Newark (7)
Ernest, R. B., 240 W. State st., Trenton (11)
Essertier, Edward P., Hackensack (2)
Evans, James L., 893 Park av., Woodcliffe (9)
Evans, Winborne D., 2704 W'tville av., Camden (4)
Ewen, Warren L., Salem (17)
Ewens, Arthur E., 3600 Pac. av., Atlantic City (1)
Ewing, Harvey M., 31 Lincoln Park, Newark (7)
Ewing, Leslie H., Berlin (4)

Facciolo, Frank, 562 Boulevard, Bayonne (9)
Fagan, Jas. L., 419 George st., N. Brunswick (12)
Fahrenbruch, F. D., Mt. Holly (3)
Failing, B. E., 71 Washington st., Newark (7)
Fairbanks, Warren H., Freehold (13)
Faison, John B., 45 Glenwood av., Jersey City (9)
Falvelo, Nicholas, 4 DeForrest av., Summit (20)
Farden, Joseph L., 342 Roseville av., Newark (7)
Farmer, Vincent, Hackensack (2)
Farmer, W. D., Allentown (11)
Farr, John C., Jr., 75 Tenth st., Hoboken (9)
Farr, Irving L., 214 Walnut st., Montclair (7)
Farrell, John A., Rockefeller Foundation, N. Y.(20)
Farrow, J. Willard, Dover (14)
Faughnan, Rose, 97 High st., Passaic (16)
Faulkingham, R. J., 61 Livingston, N. Bruns. (12)
Fauquier, Leonard B., 204 Arlington av., J. City(9)
Featherston, Dan'l F., 506 4th av., Asbury Park(13)
Fee, Elam K., Main st., Lawrenceville (11)
•Fechner, Julius, 138 W. Kinney st., Newark (7)
Feher, L. A. M., 196 Somerset st., N. Bruns. (12)
Feigenoff, I., 420 Broadway, Paterson (16)
Feit, Herman, 5 Bentley av., Jersey City (9)
Fell, Alton S., 529 E. State st., Trenton (11)
Fellman, M., 6 Baldwin av., Jersey City (9)
Ferenczi, Louis J., 33 Edwards st., Bayonne (9)
Ferguson, C. C., 89 Van Reypan av., Jersey City(9)
Fern, S. S., 122 Elizabeth av., Newark (7)
Ferris, Sanford J., 321 9th st., Newark (7)
Fesler, William, Grantwood (2)
Feury, Fred'k N., 50 Glenwood av., Jersey City (9)
Fewsmith, Joseph L., 120 Second av., Newark (7)
Field, Frank L., Far Hills (18)
Fielding, William M., Allendale (2)
Fifer, Wm. T., 748 Ave. C, Bayonne (9)
Filkins, Cedric E., 418 Wht. Horse Pk., Audubon(4)
Fine, M. J., 31 Lincoln Park, Newark (7)
Finesilver, Ed. M., 31 Lincoln Park, Newark (7)
Finke, Charles H., 317 York st., Jersey City (9)
Finke, George W., Hackensack (2)
Finke, John H. D., Hackensack (2)
Finkler, Rita S., 642 High st., Newark (7)
Finn, Frederick A., 921 Bergen av., Jersey City (9)
Fischer, E. J., 29 Ashland ter., W. Orange (7)
Fischer, John S., 20 S. Jackson av., Atlantic City(1)
Fischer, Stella C., 4401 Westfield av., Camden (4)
Fischer, W. C., 731 Mt. Prospect av., Newark (7)
Fish, Clyde M., W. Wash. av., Pleasantville (1)
Fisher, James A., Fitkin Bldg., Asbury Park (13)
Fisher, Percy C., Ridgewood (2)
Fisler, C. Frank, Clayton (8)
Fithian, George W., 266 High st., Perth Amboy(12)
Fitch, Thomas, 916 Park av., Plainfield (20)
Fitzpatrick, Ed. F., 574 Warren st., Newark (7)
Flachs, Adolph, 347 Lafayette st., Newark (7)
Flagge, Frederick W., Rockaway (14)
Flaherty, M. E., 36 Glenwood av., Jersey City (9)
Fleming, Charles Leroy, Pennsgrove (17)
Flint, Edgar, Raritan (18)
Flitcroft, William, 510 River st., Paterson (16)
Flood, G. Balleray, 279 Broadway, Paterson (16)
Flower, Morris A., 39 Lincoln Pk., Newark (7)
Flynn, E. A., 161 Washington av., Belleville (7)
Flynn, Thomas H., Somerville (18)
Foltz, H. S., Vineland (6)

Fonelli, Antonio, 469 Lowrie st., Perth Amboy (12)
Fooder, Horace M., Williamstown (8)
Forman, Howard S., 640 Bergen av., Jer. City (9)
Forman, Archibald C., 41 W. 32d st., Bayonne (9)
Forney, Norman N., Main st., Milltown (12)
Forsyth, Kenneth C., 533 Broadway, Newark (7)
Fort, J. Irving, 306 Roseville av., Newark (7)
Forte, Frank S., 456 Roseville av., Newark (7)
Foster, Frank L., 320 Springfield, Cranford (20)
Foster, George H., Rockaway (14)
Foster, Herbert W., 10 The Crescent, Montclair(7)
Foster, W. S., 233 Mt. Prospect av., Newark (7)
Fox, J. W., Hillsdale (2)
Fox, William W., 101 S. Indiana av., Atl. City (1)
Francis, Adaline M., Somerville (18)
Franckle, Cornelius S., Millville (6)
Frank, G. M., 995 S. Broad st., Trenton (11)
Frank, Morris, 920 Ave. C, Bayonne (9)
Frank, Myrtile, G., P. O. Box 62, Egg Harbor (1)
Franklin, C. C., 1109 Hamilton av., Trenton (11)
Franklin, I. H., 191 Palisade av., Jersey City (9)
Franklin, Louis, 191 Palisade av., Jersey City (9)
Frederick, Gus. H., 349 Camden st., Newark (7)
Freeland, Frank, Hackensack (2)
Freeman, Rich'd D., 103 Scotl'nd rd., So. Orange(7)
Freile, William, 25 Tonnele av., Jersey City (9)
Freinkel, J., 100 Avon av., Newark (7)
Friedland, A. J., Wildwood (5)
Friedland, Ida, Wildwood (5)
Friedmann, L. L., 486 Princeton av., Trenton (11)
Fritts, Herbert Harold, Shiloh (6)
Frobisher, Hamilton B., Teaneck (2)
Froelich, J. C., 74 Ingraham pl., Newark (7)
Frohwein, Ida H., 119 Morrist'n rd., Elizabeth(20)
Froomess, Leo E., 39 Lincoln Pk., Newark (7)
Frost, I. F., 26 Maple av., Morristown (14)
Frundt, Oscar C., 92 Bartholdi av., Jersey City (9)
Fuchs, Jacobs N., 836 S. Broad st., Trenton (11)
Fuerstman, H. L., 570 High st., Newark (7)
Fuhrmann, Barclay Stokes, Flemington (10)
Fulper, Theodore R., Hampton (10)
Funk, Joseph, 615 Elizabeth av., Elizabeth (20)
Funkhouser, Ed. B., State Hospital, Trenton (11)
Furman, Benj. A., 31 Roseville av., Newark (7)
Furst, Nathan J., 190 Johnson av., Newark (7)

Galloway, Geo. E., 109 Milton av., Rahway (20)
Gamon, Robert S., 558 Newton av., Camden (4)
Gandy, Charles M., Ocean City (5)
Ganley, Arthur J., 390 Park av., East Orange (7)
Gantz, Emma O., 215 N. Grove st., E. Orange (7)
Gardam, Joseph W., 16 Longfellow av., Newark(7)
Gariss, Joseph L., 34 W. State st., Trenton (11)
Garrabrant, Clarence, 19 N. Penn., Atl. City (1)
Garrett, Harry S., Park Ridge (2)
Garrison, B. H., 23 Monmouth st., Red Bank (13)
Garrison, Walter Sherman, Cedarville (6)
Gauch, William, 177 Elwood av., Newark (7)
Gauzza, Valentine P., Fords, N. J. (12)
Geeswein, Carl A., Matawan (13)
Gehring, G. P., 2439 F st., San Diego, Cal. (1)
Gelfer, Isaac, 30 Morris av., Union (20)
Gennell, Ernest, 278 Parker st., Newark (7)
George, M. E. W., 805 Broadway, Newark (7)
Gerendasy, J., 956 E. Jersey st., Elizabeth (20)
German, George B., 511 Cooper st., Camden (4)
Gershenfeld, D. B., 20 Hillside av., Newark (7)
Giambra, S. M., 666 Broadway, Paterson (16)
Gibb, W. Blake, Madison (14)
Gibbs, Alice S., 345 Union av., Elizabeth (20)
Gibbs, Jonathan C., 34 Spring st., Trenton (11)
Gifford, W. Royal, 247 Park av., East Orange (7)
Giglio, A. S. V., 230 Christine st., Elizabeth (20)
Gilady, Ralph, Hackensack (2)
Gilbert, H. J., 588 Broadway, Newark (7)
Gilbertson, R. L., Madison (14)
Gille, Hugo, 149 Congress st., Jersey City (9)
Gillett, H. E., Ramsey (2)
Gillson, H. V., 21 Lee pl., Paterson (16)
Gillson, John T., 170 Broadway, Paterson (16)
Gilpin, Friend B., 118 North av., Cranford (20)
Ginsberg, Geo., 624 Bloomfield av., Hoboken (9)
Gittleman, Morton, 1028 E. Jer. st., Elizabeth (20)
Glaser, E., 218 Marshall st., Elizabeth (20)
Glasgow, Thos., 120 Passaic av., Passaic (16)
Glass, Benj. E., 609 Waterbury av., Plainfield (20)
Glass, Oscar, 638 High st., Newark (7)
Glass, William H., 108 High st., Orange (7)
Glasston, H. M., 528 N. Wood av., Linden (20)
Glazebrook, F. H., 6 Altmont Court, Morristown(14)
*Glendon, Walter P., Bridgeton (6)
Glover, Lawrence L., 232 King's Hwy.,Haddonf'd(4)
Gnasso, E. R., Fort Lee (2)
Gochman, H. M., 166 Hamilton, Paterson (16)
Goeller, J. D., 1165 W. Clinton av., Irvington (7)
Goffman, Emanuel, 67 Valley rd., Montclair (7)
Goldberg, Benj. M., 1156 E. State st., Trenton (11)
Goldberg, David, Westwood (2)
Goldberg, E. H., 238 Kearny av., Kearny (9)
Goldfield, Harold H., 225 E. Jer. st., Elizabeth(20)
Golding, Harry N., 180 Carroll st., Paterson (16)
Goldstein, A., Lakewood (15)
Goldstein, Hyman I., 1425 Broadway, Camden (4)
Goldstein, Wm. H., 281 Kearny av., Kearny (7)
Gonzales, W. G., 638 Hudson st., Hoboken (9)
Good, George, 949 Park av., Union City (9)
Goodrich, S. L., 19 Vreeland av., Jersey City (20)
Goodwin, William M., 75 Congress st., Newark (7)
*Gordon, Altamont L., Burlington (3)
Gordon, A. J., 273 Roseville av., Newark (7)
Gordon, Charles D., Mt. Arlington (14)
Gordon, C. H., 808 E. State st., Trenton (11)
Gordon, I. L., 1815 Boulevard, Jersey City (9)
Gordon, Osher, 114 Prospect st., Passaic (16)
Gorson, Samuel F., 2005 Pac. av., Atlantic City (1)
Gosling, W. W., 23 Monmouth av., Red Bank (13)
Goudy, Elmer S., 187 Kearny av., Kearny (9)
Gould, J. H., 696 Ave. C, Bayonne (9)
Grady, Wm. F., 42 N. Fullerton av., Montclair (7)
Graff, Effie R., Somerville (18)
Graham, Archibald F., 42 Park av., Paterson (16)
Graham, E. E., Yardsville (11)
Gramsch, Louis, Glen Gardner (10)
Granelli, M. S., 68 Hudson st., Hoboken (9)
Graves, William B., 426 Main st., E. Orange (7)
Gray, Charles M., Vineland (6)
Gray, John W., 142 Clinton av., Newark (7)
Gray, W. B., N. Plainfield (18)
Green, David W., Salem (17)
Green, J. S., 463 N. Broad st., Elizabeth (20)
Green, William H., 230 Bank st., Newark (7)
Greenbaum, S., 400 Belmont av., East Orange (7)
Greenberg, Lewis, Lodi (2)
Greenberg, Samuel, 46 Johnson av., Newark (7)
Greene, A. D., 195 Palisade av., W. Hoboken (9)
Greenfield, A. W., Hackensack (2)
Greenfield, Bernard H., 691 Clinton av., Newark(7)
Greengrass, Jacob L., 179 B'way, Paterson (16)
Gregory, Marie C., Madison (14)
Greifinger, M. H., 225 Pomona av., Newark (7)
Greissinger, Karl, 422 20th st., W. New York (9)
Grier, Robert M., Box 424, Pleasantville (1)
Griesmier, Zadoc L., 126 3d av., Roselle (20)
Grieve, James, 88 Market st., Perth Amboy (12)
Griffith, Roy, 263 Forest av., Glen Ridge (7)
Grimes, Jesse R., Dumont (2)
Groff, P. A., Little Ferry (2)
Gruessner, Anthony, 153 Somerset, N. Bruns. (12)
Guidi, Guido M., 212 Christine st., Elizabeth (20)
Guillium, Wm. H., 504 Fourth av., Asbury Park(13)
Guion, Edw., Northfield Asylum, Northfield (1)
Guthrie, W. G., 300 Summer av., Newark (7)

Gutmann, Benj., 116 Livingston st., N. Bruns. (12)
Gutowski, Jos. M., 338 High st., Perth Amboy (12)

Hachett, Leon, Washington (21)
Hagen, Orville R., 266 Van Houten st., Pat'rs'n(16)
Hagerty, John F., 30 Wallace pl., Newark (7)
Haggerty, D. L., 227 N. Warren st., Trenton (11)
Hagney, Fred W., 699 Elizabeth av., Newark (7)
Hahn, Katherine B., (No address)
Hahn, William, 15 Lombardy st., Newark (7)
Haight, H. W., Highland Park, N. Brunswick (12)
Haines, Edgar J., Medford (3)
Haines, J., Ridgway, Mt. Holly (3)
Haines, Mabel S., 600 White H'se Pike, Audubon(4)
Haines, Wm. H., 217 Lafayette av., Audubon (4)
Haines, Willets P., Ocean City (5)
Haldeman, Robert E., Mt. Holly (3)
Haley, J. J., 851 Monmouth, Gloucester City (4)
Haley, Mark J., 3 N. Granville av., Atlantic City(1)
Hall, W. W., 170 Broadway, Paterson (16)
Hallett, Frederick S., Hackensack (2)
Halligan, Earl J., 254 Montgomery st., Jer. City(9)
Hallock, W. J., Berkley Heights, Summit (20)
*Halperin, Clement J., 641 High st., Newark (7)
Halperin, Harry, 8 Washburn pl., Caldwell (7)
Halperin, Samuel, 22 Hill st., Newark (7)
Halperin, Sophia L., 271 Palisade av., Union City(9)
Halpern, H., Englewood (2)
Halsey, Levi W., 61 Church st., Montclair (7)
Halstead, Charles F., Somerville (18)
Hamill, Patrick J., 50 Journal Sq., Jersey City (9)
Hamilton, B. C., 83 2nd av., Newark (7)
Hamilton, Lloyd A., Lambertville (10)
Hanan, James T., 11 The Crescent, Montclair (7)
Hance, Irwin Howell, Lakewood (15)
Hann, P. S., 48 W. Blackwell st., Dover (14)
Hanrahan, J. M., 1144 E. Broad st., Elizabeth (20)
Harden, Albert S., 540 Warren st., Newark (7)
Hardenberg, D. S., 347 Com'ip'w av., Jersey City(9)
Harhen, Geo. E., 22 Brookside av., Caldwell (7)
Harley, H. L., 1714 Pacific av., Atlantic City (1)
Harman, Wm. J., 190 W. State st., Trenton (11)
Harmon, Harry M., Frenchtown (10)
Harney, J. Norman, Teaneck (2)
Harp, H. J., Sussex (19)
Harreys, Chas. W., 306 Broadway, Paterson (16)
Harris, Allen, Greenwich (6)
Harris, Chas. M., 501 Bergen av., Jersey City (9)
Harris, Edwin A., Stratford (4)
Harrison, J. B., 302 E. Broad st., Westfield (20)
Hart, Hugh M., 300 Mt. Prospect av., Newark (7)
Harter, Louis F., 174 Bower st., Jersey City (9)
Hartman, H. W., Keyport (13)
Hartwell, H. A., 4 Clifton ter., Weehawken (9)
Harvey, Edwin H., 20 N. Florida av., Atl. City (1)
Harvey, John W., 40 W. 35th st., Bayonne (9)
Harvey, T. W., 59 Main st., Orange (7)
Harvey, Thos. W., Jr., 59 Main st., Orange (7)
Hasking, A. P., 318 Montgomery st., Jersey City(9)
Hauck, Lydia B., 644 Stuyvesant av., Irvington (7)
Hauck, Wm. H., 644 Stuyvesant av., Irvington(7)
Hauck, Wm. J., 207 Mt. Prospect av., Newark (7)
Hausman, Sam, Red Bank (13)
Haussling, Francis R., 661 High st., Newark (7)
Haven, Samuel C., 14 Elm st., Morristown (14)
Havens, Walter P., Farmingdale (13)
Hawkes, E. Zeh., 84 Washington st., Newark (7)
Hay, Joseph S., 255 High st., Perth Amboy (12)
Haywood, Harry, 3 Elm Row, New Brunswick (12)
Heath, Louanna, 20 Fairmount av., Newark (7)
Hedges, B. Van D., Watchung av., Plainfield (20)
Hedges, Ellis W., Watchung av., Plainfield (20)
Hegeman, Runkle F., Somerville (18)
Heil, A. Arling, Milford (10)
Heilbrunn, Julius, 2787 Boulevard, Jersey City (9)
Heinig, Frank G., Boonton (14)
Heintzelman, B. S., 19 W. 33d st., Bayonne (9)
Hekimian, J. H., 468 Palisade av., Weehawken (9)
Helff, J. R., Teaneck (2)
Hellebranth, Roland T., 104 S. Fr'kf't av., Atl. C.(1)
Heller, Nathan B., 189 16th av., Newark (7)
*Hemsath, John, 36 Spruce st., Newark (7)
Henion, Em'l L., 16 Church st., Paterson (16)
Henn, Louis D., Watchung av., Plainfield (20)
Henry, F. C., 254 State st., Perth Amboy (12)
Henry, F. C., Jr., 254 State st., Perth Amboy (12)
Henry, George, Flemington (10)
Hepburn, William M., Freehold (13)
Herbener, Eugene Garfield, Lakewood (15)
Herman, John H., 197 S. Center st., Orange (7)
Hernandez, Manuel, 1974 Hudson Blvd., Jer. C'y(9)
Herrman, W. G., Fitkin Bldg., Asbury Park (13)
Herold, Harvey T., 850 S. 13th st., Newark (7)
Herradora, J. R., Hud. Co. Tbc. San., Secaucus (9)
Hewson, James S., 374 Avon av., Newark (7)
Hexamer, Fred, 50 Lyons av., Newark (7)
Hicks, William H., 46 Milford av., Newark (7)
Higgins, G. L., 175 Ocean av., Jersey City (9)
Higgins, Joseph F., 607 Center st., Trenton (11)
Higgins, Thomas A., 565 Summit av., Jer. City (9)
Higgins, Thos. F., 146 Reid st., Elizabeth (20)
Hill, Robert H., 196 Roseville av., Newark (7)
Hill, William F., 108 Grand st., Jersey City (9)
Hillegas, E. J., Mantua (8)
Hilliard, William T., Salem (17)
Hird, Emerson Freeman, Bound Brook (18)
Hirschberg, Samuel, 615 High st., Newark (7)
Hirst, E. Reed, 586 Federal st., Camden (4)
Hirst, Levi B., 586 Federal st., Camden (4)
Hitzmann, L. A., Maywood (2)
Hoagland. Bonn W., Barron av., Woodbridge (20)
Hobert, Richard T., 191 Bellevue av., U. Montc'r(7)
Hoeller, Wm. F., 808 S. 11th st., Newark (7)
Hoening, Chas. L., 928 Hudson st., Hoboken (9)
Hofer, Clarence A., Metuchen (12)
Hoffman, Chas. D., 720 Watchung av., Plainf'ld(20)
Hoffman, Florentine M., Bayard st., N. Bruns. (12)
Hoffman, Peter, 2683 Boulevard, Jersey City (9)
Holden, E., Jr., 217 Broadway, Newark (7)
Holler, Henry G., 234 Montclair av., Newark (7)
Hollingshead, Irv. W., 123 S. 18th st., Phila., Pa.(3)
Hollingshead, Lyman, B., Pemberton (3)
Hollingshed, B. S., 600 Benson st., Camden (4)
Hollingsworth, H. H., 753 Main av., Clifton (16)
Hollinshed, Ralph K., Westville (8)
Holloway, J. Morgan, 633 Bergen av., Jer. City (9)
Holmes, G. A., 1077 E. Jer. av., Elizabeth (20)
Holmes, George J., 17 Elizabeth av., Newark (7)
Holmes T. J. E., 151 Fair st., Paterson (16)
Holt, E. Z., Children's Seashore Home, Atl. City (1)
Holters, Otto R., 513 2d av., Asbury Park (13)
Holtzman, M., 167 2d av., Elizabeth (20)
Hommell, P. E., 689 Bergen st., Jersey City (9)
Hood, Philip G., 19 Lincoln Park, Newark (7)
Hoops, Harold J., 167 Ege av., Jersey City (9)
Hoover, A. R., 5 Prince st., Elizabeth (20)
Horn, J. Fred'k, South st., Morristown (14)
Horn, Max, 80 Lyons av., Newark (7)
Hornberger, J. Howard, Roebling (3)
Horner-Roger, C. L., 721 Cooper st., Camden (4)
Horowitz, H. J., Morsemere (2)
Horre, G. W. H., 960 E. Jersey st., Elizabeth (20)
Horsford, Fred C., 305 Broadway, Newark (7)
Hosp, Paul H., 842 S. 12th st., Newark (7)
Howard, J. E., 67 W. Main st., Haddonfield (4)
Howley, B. M., 419 George st., N. Brunswick (12)
Hubbard, F. E., 65 Church st., Montclair (7)
Hubbard, H. H. V., 420 Central av., Plainfield (20)
Hubbard, Samuel T., Hackensack (2)
Huber, Wm. H., 15 Salem st., Newark (7)
Huberman, J., 853 S. 12th st., Newark (7)
Hubert, Antonio, Greystone Park (14)

Hudson, W. J., P. O. Box 343, Pleasantville (1)
Huff, Edmund N., Englewood (2)
Hughes, Frank R., Cape May (5)
Hughes, Fred'k J., 706 Park av., Plainfield (20)
Hughes, Lee W., 1019 Broad st., Newark (7)
Hughes, Morgan D., 1 Park pl., Bloomfield (7)
Hughes, Thomas E., 223 Cooper st., Camden (4)
Hulett, Albert G., 20 Hawthorne av., E. Orange (7)
Hummel, Ernest G., 414 Cooper st., Camden (4)
Hummel, L. H., Salem (17)
Hummel, Merwin L., 12 Maple av., Merchanty'le(4)
Hunt, Jay J., 997 Ave. C, Bayonne (9)
Hunt, M. M., 16 Jackson st., South River (12)
*Hunt, Ralph H., 29 Harrison st., East Orange (7)
Hunter, Edward R., Delanco (3)
Hunter, James, Jr., Westville (18)
*Hurff, Joseph E., Blackwood (4)
Hurff, Joseph W., 86 Washington st., Newark (7)
Husserl, Siegfried, 777 Clinton av., Newark (7)
Hutcheson, Chas., R., 517 Cooper st., Camden (4)
Hutchinson, A. D., 913 W. State st., Trenton (11)
Hyman, Charles, Prof. Arts Bldg., Atlantic City (1)

Iams, Samuel H., 34 Mercer st., Princeton (11)
Ill, Carl, H., 188 Clinton av., Newark (7)
Ill, Charles L., 188 Clinton av., Newark (7)
Ill, Edgar Alex., 1004 Broad st., Newark (7)
Ill, Edward J., 1004 Broad st., Newark (7)
Ill, Herbert M., 188 Clinton av., Newark (7)
Imblcau, J. E. L., Morris av., Union (20)
Inge, Theo. R., 134 W. Kinney st., Newark (7)
Ingling, Harry W., Freehold (13)
Introcaso, D. A., 45 Crescent av., Jersey City (9)
Ireland, Milton S., 23 S. Cal. av., Atlantic City (1)
Irwin, Jas. R., 330 Washington av., Belleville (7)
Irwin, J. H., Englewood (2)
Irvin, John S., 1910 Pacific av., Atlantic City (1)
Ives, Edward I., Stevens pl., Little Falls (16)
Ivins, W. C., 214 E. Hanover st., Trenton (11)

Jack, H. Wesley, 920 Haddon av., Collingswood (4)
Jacks, Oscar, 476 Mercer st., Jersey City (9)
Jacob, Albert N., Sparta (19)
Jacob, William H., 99 N. Main st., Paterson (16)
Jackson, Albert F., Hillside ave., Nutley (7)
Jackson, Chas. H., 1250 Park Bvld, Camden (4)
Jackson, E. C., 98 Washington av., E. Orange (7)
Jackson, George G., 20 Milford av., Newark (7)
Jacobson, Fred C., 1074 Broad st., Newark (7)
Jacques, J. Eugenia, 74 Waverly st., Jersey City(9)
Jaffin, Abraham E., 41 Emory st., Jersey City (9)
James, Henry C., May's Landing (1)
James, William H., Pennsville (17)
James, W. L., Edgewater (2)
Janifer, Clarence S., 208 Parker st., Newark (7)
Jarmulowsky, Harry, 29 Church st., Paterson (16)
Jarrett, Harry, 925 Broadway, Camden (4)
Jaspan, Samuel C., 820 Division st., Trenton (11)
Jaso, James V., 274 Littleton av., Newark (7)
Jedel, Myer, 125 Fourth st., Newark (7)
Jemison, Wm. F., Bradley Beach (13)
*Jennings, Charles H., N. Centre, Merchantville(4)
*Jennings, W. B., King's Highw'y, E. Haddonf'ld(4)
Jentz, John H., 980 Summit av., Jersey City (9)
Jessurun, S. H., 613 High st., Newark (7)
Johnson, Charles H., 632 Benson st., Camden (4)
Johnson, Earl V., 3200 Pac. av., Atlantic City (1)
Johnson, F. C., 62 Bayard st., N. Brunswick (12)
Johnson, H. F., 915 Kensington av., Plainfield (20)
Johnson, J. F., 209 Main st., Chatham (14)
Jones, J. Morgan, 295 Prospect st., Ridgewood (9)
Jones, Ralph R., Toms River (15)
Jordan, J. C., Manasquan (13)
Joseph, Morris, 271 Lexington av., Passaic (16)
Jukofsky, I. D., Ridgefield Park (2)
Just, Francis, 564 High st., Newark (7)
Justin, A. W., 41 Fulton st., Weehawken (9)
Justin, J. C., 1074 Dearborn rd., Palisade (9)

Kaighn, Chas. B., 905 Pacific av., Atlantic City (1)
Kain, Thomas M., 403 Cooper st., Camden (4)
Kain, Wm. W., Cape May C't H'se, R.F.D., 1 (4)
Kalter, Geo. E., 640 Prospect st., Maplewood (7)
Kane, Chas. J., 349 Grant st., Paterson (16)
Karshmer, N., 422 George st., New Brunswick (12)
Kauffman, Louis J., Millville (6)
Kaufhold, Frank, 41 Leslie st., Newark (7)
Kaufman, Ernest W., 2225 River road, Camden (4)
Kaufman, Jerome G., 299 Clinton av., Newark (7)
Kaufman, Ignatz, 190 Clinton av., Newark (7)
Kaufman, M. J., 319 Belmont av., Newark (7)
Kavanaugh, D. E., 252 W'sh'gt'n av., Belleville(7)
Kay, Clarence R., Peapack (18)
Kearney, John V., 372 Berg'line av., Union C'y (9)
Keating, C. A., 177 Ellison st., Paterson (16)
Keegan, Thos., D., 135 Arlington av., Jersey City (9)
Keeley, Chas. B., 921 Bergen av., Jersey City (9)
Keen, J. Jay, 1880 Ocean av., Brooklyn, N. Y. (9)
Keeney, J. C., 1201 Park av., Hoboken (9)
Keeney, Grace P.,
Keim, William F., 25 Roseville av., Newark (7)
Keir, F. E., Englewood (2)
Keller, Franklin J., 795 Broadway, Paterson (16)
Keller, Paul, Beth Israel Hospital, Newark (7)
Keller, Sidney C., 31 Lincoln Park, Newark (7)
Kelly, Bernard S., 1954 Blvd., Jersey City (9)
*Kemeney, Imre, Cartaret (12)
Kenney, J. A., 132 W. Kinney st., Newark (7)
Kent, M. M., 233 N. Warren st., Trenton (11)
Kenyon, H. M., Bergenfield (2)
Kern, E. Clarence, 45 Park st., Montclair (7)
Kerns, Francis J., 556 Warren st., Newark (7)
Kessler, Henry B., 666 Clinton av., Newark (7)
Kice, Henry W., Wharton (14)
Kiefer, Raym'd A., 266 Van Houten st., P't'rs'n(16)
Kildee, Henry A., Essex Co. Hosp., Cedar Grove (7)
Kilduffe, Robert A., 104 Roosevelt pl., Atl. City (1)
Kilts, W. S., Bogota (2)
Kim, Gay Bong, 720 Main st., Paterson (16)
Kinch, Fred A., 267 E. Broad st., Westfield (20)
King, Alden P., Milltown (12)
King, Chester A., Oradel (2)
King, George W., Laurel Hill, Secaucus (9)
Kinney, S. T., 250 Main st., South Amboy (12)
Kirkman, L. G., 176 Roseville av., Newark (7)
Kirkwood, Allan S., 61 Elm st., Montclair (7)
Klaus, Henry, 435 Palisade av., Union City (9)
Klein, Edward C., Jr., 209 Littleton av., Newark (7)
Klein, E. F., 136 Market st., Perth Amboy (12)
*Klein, Emanuel, 680 Clinton av., Newark (7)
Klein, Ignatz, 471 Springfield av., Newark (7)
Klein, Wm., 85 Bayard st., New Brunswick (12)
Kleiner, Samuel, 162 Hamilton av., Paterson (16)
Klenk, J. P., 328 Belleville av., Bloomfield (7)
Kline, Oran R., 414 Cooper st., Camden (4)
Klugman, Louis W., 375 Ave. C., Bayonne (9)
Knapp, Richard E., Hackensack (2)
Knauer, Geo., 930 Elizabeth av., Elizabeth (20)
Knight, Augustus S., Gladstone (18)
Knight, I. Warner, Pitman (8)
Knight, Sam'l R., 212 Jersey av., Spring Lake (13)
Knowles, James S., Millville (6)
Knox, Charles A., Ridgefield Park (2)
Knox, Harriet L., Hackensack (2)
Koch, Louis A., 16 Chestnut st., Newark (7)
Kolb, J. M., 725 Syms av., Union City (9)
Kooperman, Benj., 321 16th st., W. New York (9)
Koplin, N. H., 142 W. State st., Trenton (11)
Koppel, Joseph, 921 Bergen av., Jersey City (9)
Koppel, Leo A., 921 Bergen av., Jersey City (9)
Krone, W. F., 39 Lincoln Park, Newark (7)
Korngut, Samuel, 306 First av., Elizabeth (20)

Kraker, David A., 31 Lincoln Park, Newark (7)
*Kramer, S. E., 121 Market st., Perth Amboy (12)
Krans, Clara DeH., 920 Park av., Plainfield (20)
Krans, Edw. S., 920 Park av., Plainfield (20)
Kravtzov, Mark A., 553 S. 12th st., Newark (7)
Kremens, Max M. B., 109 States av., Atl. City (1)
Kresch, Philip, 42 W. 22d st., Bayonne (9)
Kruger, William, 31 Lincoln Park, Newark (7)
Kuder, Joseph M., Mount Holly (3)
Kuehne, Richard, 1118 Summit av., Jersey City (9)
Kuhl, Paul E., 48 N. Clinton av., Trenton (11)
Kuhlmann, Alvin E., 527 37th st., Union City (9)
Kushner, Alexander, 48 Jaques st., Rahway (20)

Labow, Hyman, 44 Prospect st., Elizabeth (20)
Laird, Geo. S., 127 Central av., Westfield (20)
Lambert, F. E., 157 Ocean av., Jersey City (9)
Lames, Bart. M., Bernardsville (18)
Lamson, Wm. J., 120 Summit av., Summit (20)
Lamy, A. W., 560 Newark av., Rahway (20)
Lance, E. W., 78 W. Milton av., Rahway (20)
Lane, Austin W., 59 Prospect st., East Orange (7)
Lane, Arthur K., Greystone Park (14)
Lane, Edward W., Bloomsbury (10)
Lane, Frank B., 33 Woodland av., East Orange (7)
Landis, Edwin W., Stillwater (19)
Lange, Louis C., 20 Clifton ter., Weehawken (9)
Lansing, James B. W., Tenafly (2)
Larrabee, C. H., 30 Beechwood rd., Summit (20)
La Riew, Fred J., Washington (21)
Larkey, Charles J., 700 Ave. C, Bayonne (9)
Larson, H. M., 36 Franklin st., Morristown (14)
Lathrop, Frederick W., 507 Park av., Plainfield (20)
Lathrope, Geo. H., 1019 Broad st., Newark (14)
Lavine, B. D., 630 N. Clinton av., Trenton (11)
Lawrence, George W., Lakewood (15)
Lawrence, Henry R., 25 S. Illinois av., Atl. City(1)
Lawrence, M. J., 279 Mt. Prospect av., Newark (7)
Lawrence, Wm., Jr., 129 Summit av., Summit (20)
Lawsing, G. Condi, 443 22d st., W. New York (9)
Lawton, Anderson A., Somerville (18)
Leaver, Morris H. Quakertown (10)
Leavitt, John F., 522 N. 3rd st., Camden (4)
Lebel, Louis J., 165 Grant av., Nutley (7)
Lee, Fred P., Dept. of Health, Paterson (16)
Lee, Stephen G., 55 Halsted st., East Orange (7)
Lee, Thomas B., 527 Penn ave., Camden (4)
LeFavor, Dean H., Palmyra (3)
Leggett, L. H., Jr., 330 E. Broad st., Westfield (20)
Leggett, T. H., Jr., 706 Park av., Plainfield (20)
Lehman, Irving J., 558 Central av., Newark (7)
Leighton, R. L., 401 Ludlow av., Spring Lake (13)
Leining, Albert, 1 Fourth st., Weehawken (9)
Lemmerz, T. H., 141 Magnolia av., Jersey City (9)
Leonard, G. F., 63 N. 5th av., New Brunswick (12)
Leonard, Isaac E., 2842 Atl. av., Atlantic City (1)
Leonard, Lothair L., 615 Asb'y av., Asb'y Park (13)
Leonardis, J. V., 94 Jefferson st., Newark (7)
Lerman, I., 1024 E. Jersey st., Elizabeth (20)
Levendusky, D. E., 52 2d av., Passaic (16)
Levin, Joseph, 322 Hawthorne av., Newark (7)
Levin, Louis, 140 W. State st., Trenton (11)
Levin, M. L., 209 Avon av., Newark (7)
Levine, Israel, 106 Bowers st., Jersey City (9)
Levine, Israel, 215 Broadway, Paterson (16)
Levine, S. C., 253 Hamilton av., Paterson (16)
Levinsohn, S. A., 282 Broadway, Paterson (16)
Levitas, George M., Westwood (2)
Levy, A., Somerville (18)
Levy, Julius, 66 Baldwin av., Newark (7)
*Lewis, Alfred A., 12 De Hart, Morristown (14)
Lewis, Alice B., Saddle River (2)
Lewis, Geo. R., 458 Washington av., Belleville (7)
Lewis, Livingston L., 712 Wash. st., Hoboken (9)
Lewis, Stewart, Toms River (15)
Lewis, Thos. K., 47 S. 27th st., Camden (4)
Leyenberger, S. B. W., 310 Mt. Prosp. st., N'w'k(7)
Liefeld, Walter L., 657 Main av., Passaic (16)
Limeburner, C. A., 95 Linwood av., Ridgefield (9)
Linares, A. C., 402 Market st., Paterson (16)
Linden, Mortimer H., 45 Clendeny av., J. City (9)
Lindenbaum, H., 2707 S. Norm'die, Los Ang. (9)
Lindley, C. N., 4047 Marathon av., Los Ang. (15)
Lippard, A. T., 209 Hollywood av., Hillside (20)
Lippincott, A. H., 406 Cooper st., Camden (4)
Lipshutz, Ben, 16 W. 22nd st., Bayonne (9)
Little, William R., Pennington (11)
Littwin, Charles, 1036 Anderson av., Palisade (2)
Liva, Arcangelo, Rutherford (2)
Liva, P. L., Lyndhurst (2)
Livengood, B. A., Swedesboro (8)
Livengood, H. R., 587 Westminster av., Eliz. (20)
Livingston, Paul, 299 Main st., East Orange (7)
Lloyd, Reba, Bridgeton (6)
Lobsenz, Nathan P., 294 Broadway, Paterson (16)
Lobo, J. P., 118 Ferry st., Newark (7)
Lockwood, F. W., 237 Prospect st., E. Orange (7)
Lomauro, Jas. R., Passaic & Grand st., Passaic (16)
London, Wm., 256 State st., Perth Amboy (12)
Londrigan, J. F., 327 Washington st., Hoboken (9)
Long, Herb. W., 102 Jefferson st., Newark (7)
Long, Miles T., 266 Monticello av., Jersey City (9)
Long, P. A., 20 Livingston av., New Brunswick (12)
Long, William H., Jr., Somerville (18)
Longbothum, G. T., 208 Dunellen, Dunellen (12)
Longsdorf, Harold E., Mount Holly (3)
Loper, John C., Bridgeton (6)
Lore, Harry E., Cedarville (6)
Lottridge, Dorothy, 43 S. Maple av., E. Orange (7)
Love, Elizabeth F., Moorestown (3)
Lovell, Fred'k H., 1013 Clinton av., Irvington (7)
Lovell, J. F., 1011 Clinton av., Irvington (7)
Lovett, Irving K., 15 Wallace, Red Bank (13)
Lovett, Jos. C., Municipal Hospital, Camden (4)
Lovejoy, J., Bound Brook (18)
Low, Frederick C., High Bridge (10)
Low, Donald B., 529 Broadway, Paterson (16)
Lowitz, Otto, 78 Clinton av., Newark (7)
Lowrey, James H., 79 Congress st., Newark (7)
Lowy, Otto, 190 Clinton av., Newark (7)
Luban, Benjamin, 730 High st., Newark (7)
Lucas, H. H., 266 Van Houten st., Paterson (16)
Lucent, S. Bell, Little Falls (16)
Luck, Paul, 74 Lexington av., Passaic (16)
Lueddecke, Roland E., E. Rutherford (2)
Lufburrow, C. B., 441 W. Front st., Plainfield (20)
Luippold, E. J., 85 Columbia ter., Weehawken (9)
Lummis, C. Percy, Bridgeton (6)
Lummis, Marshall F., Pitman (8)
Lund, John L., 267 High st., Perth Amboy (12)
Lundblad, Walt. E., 555 William st., E. Orange (7)
Luongo, Fred'co, 212 Centre st., Orange (7)
Lupin, Edward E., 727 Ave. C, Bayonne (9)
Lynch, M. M., Hackensack (2)
Lynch, Roland J., 93 Fairview av., Jersey City (9)
Lynn, John V., Ridgefield (2)
Lyon, Charles H., Phillipsburg (21)
Lyon, Earl Crosby, Bridgeton (6)
Lyon, Leslie C., P. O. Box 63, Magnolia (4)
Lyons, James V., 333 Park av., Orange (7)

MacArthur, C., 172 Roseville av., Newark (7)
Macalister, Alex., 582 Federal st., Camden (4)
MacAlister, W. W., 333 Van Houten, Paterson (16)
MacDermid, Lynden E., Bordentown (11)
Macdonald, W. S., 56 Church st., Montclair (7)
MacDowell, John L., 113 Market st., P. A'b'y (12)
MacFarland, B. W., Br'd St. B'k Bldg., Tr'nt'n(11)
MacGregor, A. W., 379 Ellison st., Paterson (16)
MacKeller, James Malcolm, Tenafly (2)
MacKenzie, R. A., 501 Grand av., Asbury Park (13)
MacLaren, W. S., 35 Boudinot st., Princeton (11)

MacMillan, Wright, 657 Main av., Passaic (16)
MacPherson, Elwood H., 12 R'wl'y pl., Millburn (7)

McBride, Andrew F., 30 Church st., Paterson (16)
McBride, Hesser G., 1702 S. Or. av., Newark (7)
McCabe, Thomas S., 913 Broad st., Newark (7)
McCallion, W. H., 33 Prince st., Elizabeth (20)
McCamey, Kenneth E., 174 Carroll st., Paterson (16)
McCarthy, Arthur M., 2772 Federal st., Camden(4)
McConaghy, Thos. P., 1017 C'per st., Camden (4)
McConaughy, Francis, Somerville (18)
McCormack, Frank G., Englewood (2)
McCormick, D. L., 9 Tichenor st., Newark (7)
McCormick, W. M., 266 Market st., P. Amboy (12)
McCoy, John C., 292 Broadway, Paterson (16)
McCroskery, J. H., 206 N. Arlington av., E. Or. (7)
McCullough, J. H., 523 E. State st., Trenton (11)
McDannald, William S., Tenafly (2)
McDede, Frank F., 922 Main st., Paterson (16)
McDede, Jos. Searle, 215 Ege av., Jersey City (9)
McDonald, F. R., 345 Comm'pw av., Jer. City (9)
McDonald, J. O., 194 W. State st., Trenton (11)
McDonald, Richard J., 294 Broadway, Paterson(14)
McDonnell, G. E., Mt. Holly (3)
McElhinney, D. R., 110 W. Jer. st., Elizabeth (20)
McElroy, Ervin, Rockaway (14)
McEwen, Floy, 299 Broadway, Newark (7)
McFeeley, Percy R., Bogota (2)
McGeehan, S. M., Ryanhurst Apts., Atl. City (1)
McGivern, Chas. S., 101 S. Indiana av., Atl. City (1)
McGovern, J. F., 24 Livingston av., N. Bruns. (12)
McGuire, James J., 122 W. State st., Trenton (11)
McIlvaine, William Earle, Ridgefield Park (2)
McKiernon, Robt. L., 31 Lincoln Park, Newark(7)
McKinstry, Frank P., Washington (21)
McLean, Herbert E., 92 Fairview av., Jer. City (9)
McLean, Hugh A., 414 17th st., W. New York (9)
McLean, John J., 92 Fairview av., Jersey City (9)
McLellan, Geo. A., 19 Hawthorne av., E. Orange (7)
McLoughlin, F. J., 558 Jersey av., Jersey City (9)
McLeod, N. S., 418 George st., New Brunswick (12)
McMahon, B. C., 185 South st., Morristown (14)
McMurtrie, W. A., 26 Maple av., Morristown (14)
McNenney, C. E., 113 Fairview av., Jersey City (9)
McVay, Edward A., 234 Lafayette st., Newark (7)

Maas, Max A., 329 Clinton av., Newark (7)
Mabey, J. C., 242 Clairmont av., Montclair (7)
Mace, Margaret, Wildwood (5)
Macfarland, B. W., Br'd St. Bk. Bldg., Trent'on (11)
Maciejewski, A. S., 212 Van Bruen st., Newark (7)
Mack, George L., Bound Brook (18)
Mackey, Margaret, 211 Arlington av., Jer. City (9)
Mackler, Louis, 16 S. Maryland av., Atl. City (1)
Maclay, Joseph A., 239 Broadway, Paterson (16)
Madden, Leland Sanford, Pleasantville (1)
Madden, T. W., 16 Frazer av., Collingswood (4)
Madden, W. F., 324 S. Broad st., Trenton (11)
Madden, Wm. L., 30 Kensington av., Jer. City (9)
Magennis, B. C., 170 Hilton av., Paterson (16)
Magner, James P., 726 Ave. C, Bayonne (9)
Magner, John J., Hackensack (2)
Mahaffey. Jesse L., 408 Cooper st., Camden (4)
Makin, J. B., Fitkin Building, Asbury Park (13)
Malatesta, C. S., 720 Watchung, Plainfield (20)
Mallalieu, F. W., 16 Monticello av., Jer. City (9)
Manly, Thos. E., 313 Parker st., Paterson (16)
Manahan, D. V., Red Bank (13)
Mancusi-Ungaro, E., 156 Mt. Prospect, Newark (7)
Mancusi-Ungaro, L., 156 Mt. Prospect, Newark (7)
Mann, Jacob J., 255 State st., Perth Amboy (12)
Maps, Howard L., 53 Passaic av., Passaic (16)
Maras, Peter E., 80 Tonnele av., Jersey City (9)
Marcus, Jos. H., 101 S. Newton av., Atl. City (1)
Marcarian, Henry B., 904 Cooper st., Camden (4)
Marcy, Alexander, Jr., Riverton (3)
Marcy, John W., E. Park av., Merchantville (4)
Margulis, Boris, 339 Hawthorne av., Newark (7)
Mark, Joseph S., 102 Green st., Woodbridge (12)
Markel, A. G., 320 Broadway, Paterson (16)
Markowitz, Irwin, 2157 Boulevard, Jersey City (9)
Markowitz, Louis, 189 Graham av., Paterson (16)
Marks, Edward G., 655 Kearny av., Arlington (7)
Marone, Carmine R., 648 First av., Elizabeth (20)
Marquis, Dean W., 520 Park av., E. Orange (7)
Marschak, Martin, 679 Ave. C, Bayonne (9)
Marsh, E. J., 400 Van Houten st., Paterson (16)
Marshall, Jos. C., 1517 Pacific av., Atlantic City (1)
Marshall, Lawrence H., 689 Ferry av., Camden (4)
Martin, William, 117 S. Illinois av., Atl. City (1)
Martin, William P., 25 Holland rd., S. Orange (7)
Martine Frank L., 182 Roseville av., Newark (7)
Martinetti, Carlo D., 311 Central av., Orange (7)
Martland, Harrison S., 180 Clinton av., Newark (7)
Martucci, Louis, 192 Mt. Prospect av., Newark (7)
Marvel, P., 101 S. Indiana av., Atlantic City (1)
Marvel, P., Jr., 101 S. Indiana av., Atlantic City (1)
Mason, Howard B., Freehold (13)
Mason, Jas. H., 3d, Ind. and Pac. avs., Atl. City (1)
Massey, John F., 20 S. Newport av., Ventnor (1)
Matheke, O G., 328 Sussex av., Newark (7)
Mathews, R. H., 186 South, Morristown (14)
Matthews, H. E., 504 Hillside av., Orange (7)
Matthews, Leonard M., 655 Main av., Passaic (16)
Matthews, Wm. J., 938 Hudson st., Hoboken (9)
Maturo, V. E., 816 Boulevard, Bayonne (9)
Mauo, Stewart R., Riverside (3)
Mayer, Wm. W., 532 Bergen av., Jersey City (9)
May, Ernest A., 728 High st., Orange (7)
Mayhew, Charles H., Millville (6)
Mazzarella, Carlo, 56 Cross st., Paterson (16)
Meacham, E. A., 112 Stevens st., S. Amboy (12)
Mead, Walter G., 699 Kearny av., Arlington (9)
Means, P. B., State Hospital, Trenton (11)
Mecray, Paul M., 405 Cooper st., Camden (4)
Medd, John C., 25 Curtis pl., Maplewood (7)
Meehan, Martin M., 225 Union av., Belleville (7)
Meeker, Frank B., 355 Clifton av., Newark (7)
Meeker, I. A., 581 Valley rd., Upper Montclair (7)
Meier, William, Haskell (16)
Meigh, Josiah, Bernardsville (18)
Meinzer, Martin S., Madison av., Perth Amboy (12)
Meloney, Lester F., 156 2d st., Clifton (16)
Mendelsohn, D. H., 146 Broadway, Paterson (16)
Mendelsohn, Lewis, 272 Montgomery st., J. City (9)
Mendenhall, Clinton D., Bordentown (3)
Meneve, Alfred D., 87 Bridge st., Paterson (16)
Menk, Paul E., 31 Lincoln Park, Newark (7)
Mentzer, C. A., 1444 N. Broad st., Hillside (20)
Mercelis, Eliz., 17 Plymouth st., Montclair (7)
Mercer, Arch., 31 Washington st., Newark (7)
Merliss, Eugene, 386 Clinton av., Newark (7)
Merrill, C. F., 16 S. 3d av., Highland Park (12)
Merscheimer, C. H., Reservoir av., Jersey City (9)
Messinger, Samuel J., Chrome (12)
Metzer, Emma P. W., Riverside (3)
MeVey, Jas. C., 2907 Pacific av., Atlantic City (1)
Meyer, George P., 410 Haddon av., Camden (4)
Meyer, Wm., 436 New York av., Union City (9)
Meyerson, Noah, 428 15th st., West New York (9)
Mial, Leon'das L., 38 Elm st., Morristown (14)
Michela, Luigi S., 206 Carroll st., Paterson (16)
Miller, D. J. M., Calif. & Pac. avs., Atlantic City (1)
Miller, H. Garrett, Millville (6)
Miller, Jos. A., 364 Prospect st., S. Orange (7)
Miller, L. H., Woodstown (17)
Miller, M. H., 311 16th st., West New York (9)
Miller, Thomas B., Butler (14)
Mills, Alvah V., Little Falls (16)
Mills, Charles S., Riverton (3)
Minard, E. L., 140 4th av., East Orange (7)
Miner, Donald, 921 Bergen av., Jersey City (9)

Minnefor, Chas. A., 214 S. 6th st., Newark (7)
Minningham, Wm. D., 18 Hedden ter., Newark (7)
Mishell, Dan. R., 85 Lincoln Park, Newark (7)
Mitchell, Augustus J., 59 South st., Newark (7)
Mitchell, C. H., 1100 W. State st., Trenton (11)
Mitchell, Chas. R., 311 Broadway, Paterson (16)
Mockridge, O. A., 8 S. Mountain av., Montclair (7)
Moffat, B. W., 76 W. Front st., Red Bank (13)
Moister, Roger W., 7 Norwood av., Summit (20)
Monoghan, Wm. J., Secaucus (9)
Montfort, R. J., 1051 E. Jer. st., Elizabeth (20)
Moore, Dean C., 73 N. Arlington av., E. Orange (7)
Moore, G. M., Alexandria, Pa. (11)
Moore, John D., 6 Washington av., Bloomfield (7)
Moore, John H., Bridgeton (6)
Moore, R. H., 86 Beechwood av., Trenton (11)
Morgan, Browne, 260 Liberty st., Bloomfield (7)
Morley, Grace C., 1000 Hudson st., Hoboken (9)
Morris, Clement, 513 Broadway, Newark (7)
Morris, D. G., 11 E. 22nd st., Bayonne (9)
Morris, Thos. M., Watchung av., Plainfield (20)
Morris, Watson Budlong, Springfield (20)
Morrison, Caldwell, 379 7th av., Newark (7)
Morrison, D. L., 92 Carroll st., New Brunswick (12)
Morrison, Frederick H., Newton (19)
Morrison, J. Bennett, 66 Milford av., Newark (7)
Morrill, Jas. P., 310 Broadway, Paterson (16)
Morrow, Jos. R., Isolation Hospital, Oradel (2)
Morse, G. V., 70 Watsessing av., Bloomfield (7)
Mosher, H. L., Lyndhurst (2)
Motzenbecker, P. F., 31 Lincoln Park, Newark (7)
Moulton, Chas. D., 122 Park av., East Orange (7)
Mount, Elmer, 76 Sherman pl., Jersey City (9)
Mount, W. B., 21 Plymouth, Montclair (7)
Mravlag, Victor, 1064 E. Jersey st., Elizabeth (20)
Mras, J. N., State Hospital (11)
Mueller, Geo. H., 102 Summit av., Jersey City (9)
Muellerschoen, Geo. J., Prof. Bldg., Atl. City (1)
Mulford, Ephraim R., Burlington (3)
Muller, F. L., Carlstadt (2)
Mullin, Raymond J., 857 S. 11th st., Newark (7)
Munger, Ray T., Watchung av., Plainfield (20)
Murn, Charles J., 48 Smith st., Paterson (16)
Murphy, James M., 2753 Boulevard, Jer. City (9)
Murphy, Leo J., 374 West st., Union City (9)
*Murray, Eugene W., 433 Mt. Prosp. av., New'k (7)
Murray, H. A., 624 Mt. Prosp. av., Newark (7)
Muta, Samuel A., 47 Park av., West Orange (7)
Mutchler, H. R., Dover (14)
Muttart, George W., 702 Ocean av., Jersey City (9)
Mutter, Alfred A., 75 Beach st., Arlington (9)
Myatt, Leslie E., Bridgeton (6)
Myer, Edw. H., Mahwah, N.J. & Sufferin, N.Y. (2)

Nafey, Herb't W., Highland Pk., N. Brunswick (12)
Nash, Albert B., 10 S. 13th st., Newark (7)
Nash, Alexander E., 20 Forest av., Verona (7)
Nash, Herman S., 861 S. 11th st., Newark (7)
Nash, W. G., 20 Clinton st., Newark (7)
Nalitt, David I., 28 W. 33rd st., Bayonne (9)
Nattrass, R. B., 835 Castle Point ter., Hoboken (9)
Naturo, Joseph, 172 Littleton av., Newark (7)
Naulty, C. W., Jr., 403 High st., Perth Amboy (12)
Nay, Chas. L., 164 Palisade av., Jersey City (9)
Neer, Frank Y., 127 Broadway, Paterson (16)
Neer, William, 245 Broadway, Paterson (16)
Nelson, Aaron, 461 Jersey av., Jersey City (9)
Nelson, Harry, Woodbury (8)
Neves, Chas S., 281 Park av., Montclair (9)
Nevin, John, 921 Bergen av., Jersey City (9)
Nevin, Joseph A., 185 Bowers st., Jersey City (9)
Newcombe, Marcus W., Brown's Mills (3)
Newman, Ab'ham J., 42 Sherman av., Jer. City (9)
Newman, Emanuel D., 81 New st., Newark (7)
Newman, Julius, 10 Osborne ter., Newark (7)
Newman, Louis G., 316 E. Broad st., Westfield (20)
Nichols, Louis G., 723 Washington st., Hoboken (9)
Nichols, Stanley H., Fitkin Bldg., L. Branch (13)
Nicholson, J. L., 205 Wash. av., Haddonfield (4)
Niemeyer, C. V., 4610 Boulevard, Weehawken (9)
Nittoli, Rocco M., 660 E. Jersey st., Elizabeth (20)
Noll, Louis, 1026 Clinton av., Irvington (7)
Norris, C. A., Manasquan (13)
North, Harry R., 160 W. State st., Trenton (11)
Noval, Wm. A., 419 Main st., Paterson (16)
Nowrey, Jos. E., Jr., 431 Vine st., Camden (4)
Nuse, Edward F., 550½ Jersey av., Jersey City (9)
Nydes, John, 239 Springfield av., Newark (7)
Nye, Howard H., 174 Carroll st., Paterson (16)
Nyiri, William, 17 Hillside av., Newark (7)

Oakes, Alfred E., 1158 Mary st., Elizabeth (20)
O'Brien, Paul, East Rutherford (2)
O'Connor, B. A., 314 N. 4th st., Harrison (9)
O'Connor D. F., 671 Broad st., Newark (7)
O'Connor, Jas. F., 286 Chestnut st., Kearny (9)
O'Connor, John J., 434 Clinton av., Union City (9)
O'Connor, M. J., 9 Chapman pl., Irvington (7)
O'Crowley, C. R., 31 Lincoln Park, Newark (7)
Ockene, Abraham, 495 Palisade av., Union C'y (9)
Oestmann, A. W., 932 Summit av., Jersey City (9)
*Ogden, William E., Ridge rd., Rutherford (2)
O'Grady, Thos. F., 374 Grand st., Paterson (16)
O'Hanlon, George, Jersey City Hospital (9)
Okin, I., 23 Passaic av., Passaic (16)
Olcott, George P., 23 Hamilton st., E. Orange (7)
Older, Benj., 435 Clinton av., Union City (9)
Oleynick, S., 107 Clinton av., Newark (7)
Oliphant, N. B., 152 W. State st., Trenton (11)
Olini, Jos. J., 30 Breintnall pl., Newark (7)
Oliver, David H., Bridgeton (6)
Olmstead, W. D., 1920 Pacific av., Atlantic City (1)
Olpp, Archibald E., 412 15th st., Union City (9)
O'Neill, Charles L., 11 N. 7th st., Newark (7)
O'Neill, John H., 270 Montgomery st., Jer. City (9)
O'Rourke, Jas. J., 871 Stuyvestant av., Trenton (11)
Opdyke, Chas. P., 2633 Boulevard, Jersey City (9)
Opdyke, Levings A., 55 Clinton av., Jersey City (9)
Openchowski, M., 635 High st., Newark (7)
Opfermann, John L., 112 Broad st., Red Bank (13)
Oram, Jos. H., 495 Broadway, Paterson (16)
Orloff, Samuel, 155 Polk st., Newark (7)
Orton, George L., 98 Elm st., Rahway (20)
Orton, Henry B., 24 Commerce st., Newark (7)
Oshrin, Henry, 760 Palisade av., W. New York (9)
Osmun, Louis C., Hackettstown (21)
Osmun, Milton M., 611 Broadway, Camden (4)
Ost, Henry, 1109-A Broad st., Newark (7)
Ovens, Richard C., 675 Bergen av., Jersey City (9)
Owen, Fred W., 18 Franklin pl., Morristown (14)

Paczkowsi, Thad., 194 Broad st., Bloomfield (7)
Paddock, Royce, 1019 Broad st., Newark (7)
Paganelli, T. Richard, 1006 Garden st., Hoboken (9)
Pagliughi, John J., 401 18th st., Union City (9)
Palen, Gilbert J., Woodbury (8)
Pallen, Conde de S., Rochelle Park (2)
Palm, Howard F., 614 N. 2nd st., Camden (4)
Palmer, Gideon H., 10 N. Munn av., E. Orange (7)
Palmer, H. S., 257 Mulberry st., Newark (7)
Pannell, W. L., 7 Prospect st., East Orange (7)
Pannullo, J. N., 260 Van Bruen st., Newark (7)
Pansay, Abraham, 12 Jackson st., South River (12)
Pantaleone, R., 504 Hamilton av., Trenton (11)
Paradise, Jas. A., Closter (2)
Parisi, A., 150 Hunterdon st., Newark (7)
*Parke, Henry, 9 Church st., Paterson (16)
Parker, John E., 385 Park av., Orange (7)
Parker, H. N., 72 N. Clinton st., Trenton (11)
Parry, O. K., Kinmonth Bldg., Asbury Park (13)
Parsonnet, Aaron E., 3 Madison av., Newark (7)
Parsonnet, Eugene V., 31 Lincoln Pk., Newark (7)

Pascall, Thos. M., 197 Lincoln av., Newark (7)
Paulson, Arch. M., 160 E. 7th st., Plainfield (20)
Payne, Guy, Overbrook Hospital, Cedar Grove (7)
Payne, Joseph, Midland Park (2)
Peck, Ellery Newell, Boonton (14)
Pedrick, Charles D., Glassboro (8)
Pedrick, William, Glassboro (8)
Peer, Lyndon A., 1019 Broad st., Newark (7)
Pegau, Paul, Woodbury (8)
Pellarin, John D., 493 Clinton av., Union City (9)
Pellet, J., Hamburg (19)
Pelusio, Aug. M., 125 E. 16th st., Paterson (16)
Pendexter, S. E., 11 S. Arlington av., E. Orange (7)
Pennington, G. P., 12 S. Chelsea av., Atl. City (1)
Pennington, J., 101 S. Indiana av., Atl. City (1)
Pentel, Louis S., 307 16th st., W. New York (9)
Perham, Roy G., Hasbrouck Heights (2)
Perkins, Jas. L., 18 Alden st., Cranford (20)
Perlberg, H. J., 921 Bergen av., Jersey City (9)
Pearlstein, F., 325 16th st., West New York (9)
Perkel, Louis L., 3263 Boulevard, Jersey City (9)
Perry, Frank L., Pennsgrove (17)
Pessel, J. F., 192 W. State st., Trenton (11)
Peteler, Alois, Keyport (13)
Peters, Chas. M., 921 Bergen av., Jersey City (9)
Peters, E. A. P., 394 Bergen av., Jersey City (9)
Peterson, C. A., 921 Washington st., Hoboken (9)
Pettit, Herschel, Ocean City (5)
Pettit, H. H., Ridgewood (2)
Petry, William, 109 Treacy av., Newark (7)
Phelan, Edward, 18 South st., Newark (7)
Phelps, James, 238 Park av., Paterson (16)
Philhower, Geo. B., 281 Grant st., Nutley (7)
Phillips, A. A., 150 Walnut st., Newark (7)
Phillips, Claude B., 891 H'ddon av., Coll'gsw'd (4)
Phillips, R. H. C., 144 W. State st., Trenton (11)
Phillips, Walter, Englewood (2)
Pierson, Carl L., State Hospital, Trenton (11)
Pierson, Henry C., 530 Locust st., Roselle (20)
Pierson, Theodore A., Hopewell (11)
*Pignataro, Mateo S., 37 Johnson av., Newark (7)
Pike, Chas. E., 411 Newton av., Oaklyn (4)
Pilch, Arthur C., 1 Willard av., Bloomfield (7)
Pilkington, Albert, Amsterdam Apts., Atl. City(1)
Piller, Jacob, 170 Broadway, Paterson (16)
Pinckney, Frank N., Morristown (14)
Pindar, David B., 1100 Bloomfield av., Hoboken (9)
Pindar, F. S., 960 Park av., Woodcliff (9)
Pindar, William A., 975 Broadway, Woodcliff (9)
Pinkerton, W. Alfred, 854 Ave. C, Bayonne (9)
Pinneo, F. W., 439 Mt. Prospect av., Newark (7)
Pinsky, Meyer M., 444 Broadway, Camden (4)
Piskorski, A. V., 604 Jersey av., Jersey City (9)
Pitkin, George P., Bergenfield (2)
Pizzi, Francis W., 205 Park av., Orange (7)
Plante, Amos A., 228 Dunnell rd., Maplewood (7)
Platt, Thomas H., Dunellen av., Dunellen (12)
Plume, Clarence A., Succasunna (14)
Pogoloff, Samuel H., Manville (18)
Poland, Geo. A., 25 E. Wash. av., Pleasanty'le(1)
Poland, Joseph, 1904 Pacific av., Atlantic City (1)
Polevski, Jacob, 682 High st., Newark (7)
Pollak, Berth S., Laurel Hill, Secaucus (9)
Polizotti, J. L., 193 Park av., Paterson (16)
Polk, Charles C., 417 W. Broad st., Westfield (20)
Pollock, James L. Greystone Park (14)
Polowe, D., 555 E. 22nd st., Paterson (16)
Polvalski, Alex. W., 320 York st., Jer City (9)
Pomeranz, R., 31 Lincoln Park, Newark (7)
Pontery, Herb't, 89 Bowers st., Jersey City (9)
Pons, C. A., Fitkin Bldg., Asbury Park (13)
Poole, V. T., 72 Edgewater pl., Edgewater (9)
Pooley, Thomas R., Jr., Newton (19)
Potter, R. T., 86 Harrison st., East Orange (7)
Potter, Robert C., 25 Fulton st., Newark (7)
Powell, Alfred A., 76 W. Front st., Red Bank (13)
Powell, Wm. R., 702 Market st., Camden (4)
Powis, Ethel M., 198 W. State st., Trenton (11)
Prager, Bert A., Chatham (14)
Prather, John W., Dumont (2)
Pratt, C. Howard, 411 E. 5th st., Plainfield (20)
Pratt, John E., Dumont (2)
Pratt, William H., 516 Cooper st., Camden (4)
Preston, Perry B., 12 Palm st., Newark (7)
Price, Nathaniel G., 31 Lincoln Park, Newark (7)
Pringle, F. A., 192 Clairmont av., Montclair (7)
Proctor, Francis E., 1245 Greenw'd av., Trenton(11)
Proctor, James Wm., Englewood (2)
Proncipato, Roberto, 402 Walnut st., Camden (4)
Protzman, Thomas B., Englewood (2)
Prout, Chas. D., 414 Sunset av., Asbury Park (13)
Prout, Thomas P., 19 Prospect st., Summit (20)
Prout, William B., Teaneck (2)
Pudney, Wm. K., 11 Seymour av., Montclair (7)
Pullen, Guy F., Leonia (2)
Purcell, E. F., 800 Stuyvesant av., Trenton (11)
Pursell, William Dana, Phillipsburg (21)
Purdy, Chas. H., 35 Highland av., Jersey City (9)
Pyle, Louis A., 89 Fairview av., Jersey City (9)
Pyle, Wallace, 15 Exchange pl., Jersey City (9)
*Pyle, Wellden, 110 Irvington av., South Orange(7)
Pyle, William L., 678 Bergen av., Jersey City (9)

Quigley, Fred'k J., 4622 Boulevard, Union City (9)
Quimby, W. O'Gorman, 14 James st., Newark (7)
Quinn, Norman J., 3303 Pac. av., Atlantic City (1)
Quinn, S. T., 326 S. Broad st., Elizabeth (20)

Rado, William, 48 Wilson av., Newark (7)
Rados, Andrew, 299 Clinton av., Newark (7)
Ramos, Nicholas J., 188 Market st., Newark (7)
Ramsey, Murray E., 221 Lenox av., Westfield (20)
Ramsey, F. Muriel, Millville (6)
Randolph, John M., 131 Main st., Rahway (20)
Ranson, Bris. B., 601 Ridgew'd av., Maplewood (7)
Rath, Irving L., 154 Clinton pl., Newark (7)
Rathgeber, C. F., 18 William st., E. Orange (7)
Rathgeber, Wm. M., 249 Roseville av., Newark (7)
Raughley, William C., Taunton av., Berlin (4)
Rauschenbach, P. E. 223 Broadway, Paterson (16)
Ravitz, Samuel F., 1113 Broad st., Newark (7)
Rawitz, Sidney B., 190 Clinton av., Newark (7)
Rayne, J. Edw., 116 Cherry st., Elizabeth (20)
Read, Clinton H., 567 So. Warren, Trenton (11)
Reason, John J., Roosevelt (12)
Rector, Jos. M., 681 Bergen av., Jersey City (9)
Reddan, M. W., 126 W. State st., Trenton (11)
Reed, F. Grendon, 52 Hill st., Morristown (14)
Reed, Hilton S., 101 S. Ind. av., Atlantic City (1)
Reed, R. Ralston, 65 Wash. st., Morristown (14)
Reeves, E., 32 Monroe st., Passaic (16)
Reeves, J. Franklin, Bridgeton (6)
Reich, H. 765 High st., Newark (7)
Reich, Jerome J., 137 Maple av., Newark (20)
Reich, S. Albert, 921 Bergen av., Jersey City (9)
Reid, Erwin W., Garfield (2)
Reid, James J., Ocean av., Rumson (13)
Reid, John W., 1 Kearny av., Kearny (9)
Reiner, Jacob, 517 N. Broad st., Elizabeth (20)
Reinfeld, A. G., 354 Clinton av., Newark (7)
Reingold, Alex., 221 Garden st., Hoboken (9)
Reisinger, P. B., Roebling (3)
Reismann, E., 31 Lincoln Park, Newark (7)
Reiter, Walter A., 50 DeForrest av., Summit (20)
Reitneauer, John S., 518 Co'lbia st., Union City (9)
Reitter, G. S., 191 Halsted st., East Orange (7)
Remer, Daniel F., Mount Holly (3)
Renner, Dan Smith, Skillman (18)
Renzulli, Francesco, 288 S. 7th st., Newark (7)
RePass, Paul E., 317 Central av., Orange (7)
Reyner, Daniel C., 2703 Pac. av., Atlantic City (1)
Reynolds, Earle C., 657 Main av., Passaic (16)

Reynolds, Harry C., 657 Main av., Passaic (16)
Reynolds, Walter, 27 S. Ind. av., Atlantic City (1)
Rhone, David S., 1202 Haddon av., Camden (4)
Ribbans, Robert C., 63 Central av., Newark (7)
Rice, Franklin W., 184 South st., Morristown (14)
Rich, Charles, 191 Littleton av., Newark (7)
Rich, Harry H., 32 Broad st., Newark (7)
Richards, J. N., Pennington (11)
Richardson, A., 60 Orange rd., Montclair (7)
Richardson, Charles A., Closter (2)
Richardson, E. M., 557 Stevens st., Camden (4)
Ricketts, Henry E., 31 Lincoln Park, Newark (7)
Rieck, Walt. R., 377 Kearny av., Arlington (9)
Rleman, Aloysius, 3504 Boulevard, Jersey City (9)
Riha, Wm. W., 835 Ave. C, Bayonne (9)
*Ringland, Robert F., 56 Church st., Montclair (7)
Rink, W. E., Burlington (3)
Riordon, John, E. Rutherford (2)
Ripley, Charles D., Point Pleasant (15)
Ripley, Edward W., 11 Seymour st., Montclair (7)
Ripps, Maurice L., 331 Elmira av., Elizabeth (20)
Ritter, John J., Butler (16)
Riva, Fred S., Milltown (12)
Rizzolo, Edward M., 250 Mt. Prosp. av., Newark(7)
Robbin, Lewis, 16 Clinton pl., Newark (7)
Robbins, Charles M., 31 Lincoln Park, Newark (7)
Robbins, Henry B., 144 Mercer st., Jersey City (9)
Roberts, Edgar W., 21st & Palisade av., W.N.Y.(9)
Roberts, Joseph E., Jr., 403 Cooper st., Camden (4)
Robertson, Grace M., 820 2d pl., Plainfield (20)
*Robertson, Samuel E., 60 Tuscan rd., Maplew'd(7)
Robinson, Benj. A., 265 Mulberry st., Newark (7)
Robinson, J. T., Bound Brook (18)
Robinson, Moe, 1014 E. Grand st., Elizabeth (20)
Rodman, E. Warren, Beverly (3)
Rodman, R. W., Lyndhurst (2)
Roeber, William J., 21 Nesbit pl., Irvington (7)
Roemer, Jacob, 213 Broadway, Paterson (16)
Rogers, Alvin S., 126 N. Warren, Trenton (11)
Rogers, Edwin B., 814 Haddon, Collingswood (4)
Rogers, Harry L., Riverton (3)
Rogers, Harry, 60 Main st., Orange (7)
Rogers, L. H., Municipal Colony, Trenton (11)
Rogers, Richard M., 1 Wallace st., Newark (7)
Rogers, Robert H., 49 Ninth av., Newark (7)
Rogers, W. N., 1235 Brunswick av., Trenton (11)
Roh, Robert F., 1117 So. Orange av., Newark (7)
Rona, Maurice, 159 Bayard st., N. Brunswick (12)
Rosecrans, J. H., 826 Hudson st., Hoboken (9)
Rosenberg, Albert B., 1912 Boulevard, Jer. City (9)
Rosenberg, J., 692 Bergen av., Jersey City (9)
Rosenberg, L. Charles, 11 Murray st., Newark (7)
Rosenblatt, S., 1920 Pacific av., Atlantic City (1)
Rosenstein, Jacob, 568 Bergen av., Jersey City (9)
Rosenstein, S. L., 557 Clinton av., Newark (7)
Ross, Alexander S., 542 Cooper st., Camden (4)
Rossell, Edward W., 801 Cooper st., Camden (4)
Roth, I. I., 143 Clinton pl., Newark (7)
Roth, Oswald H., 210 Littleton av., Newark (7)
Rothenberg, S., 1 Hillside av., Newark (7)
Rothseid, Abraham, 29 Scheerer av., Newark (7)
Rowan, Henry M., 164 W. State st., Trenton (11)
Rowland, James J., Highlands (13)
Rowland, J. H., 159 New st., N. Brunswick (12)
Roy, Bert W., Sussex (19)
Roy, Jos. N., 63 17th av., Paterson (16)
Rubin, A. A., 433 Washington av., Belleville (7)
Rubin, Henry S., 11 High st., Morristown (14)
Rubinow, Saul M., 755 High st., Newark (7)
Ruch, Louis, Englewood (2)
Ruch, Valentine, Englewood (2)
Rufe, John J., High Bridge (10)
Rullman, Walter A., 58 W. Front st., Red Bank(13)
Rumage, Wm. T., 232 Lafayette st., Newark (7)
Rundlett, Emelia V., 79 Prosp. st., Jersey City (9)
Runnells, J. E., Bon. Burn San., Scotch Plains(20)
Runyan, Wm. J., 106 Broad st., Bloomfield (7)
Runyon, L. P., 82 Somerset st., N. Brunswick (12)
*Runyon, Mefford, 110 Irvington av., So. Orange(7)
Ruoff, Andrew C., 494 New York av., Union City(9)
Russell, C. B., 119 Hamilton av., Paterson (16)
Russell, David L., 690 Bergen av., Jersey City (9)
Russell, L. Crawford, 192 Clinton av., Newark (7)
Ryan, John N. 158 Lexington av., Passaic (16)

Sacco, Anthony, 440 New York av., Union City (9)
Salasin, Samuel, 511 Pac. av., Atlantic City (1)
Salmon, Leon T., Lambertville (10)
Salvati, Leo H., 180 Elm st., Westfield (20)
Salzman, Nathan, 306 Broadway, Paterson (16)
Sandler, Moses W., Fort Lee (2)
Sandt, F. R., 466 Park av., Paterson (16)
Santangelo, Stephen, 3170 Boulevard, Jer. City (9)
Santora, Philip J., 192 Elm st., Newark (7)
Sarla, Michael, Hackensack (2)
Satchwell, H. H., 640 Stuyvesant av., Irvington (7)
Saulsberry, C. E., 75 Livingston st., N. Bruns.(12)
Saunders, Oris W., 1700 Broadway, Camden (4)
Savoye, R. G., 115 Central av., Westfield (20)
Sawyer, Edmund E., 336 1st st., Hackensack (2)
Sayre, Wm. D., 69 Maple av., Red Bank (13)
Scammell, F. G., 40 S. Clinton av., Trenton (11)
Scanlan, David W., 15 S. Ill. av., Atlantic City (1)
Schaaf, Edw. O., 217 S. Orange av., Newark (7)
Schaaf, Royal A., 413 Mt. Prospect av., Newark (7)
Schachter, H. A., 6 Milford av., Newark (7)
Schaefer, E. P., 12 Harrison pl., Irvington (7)
Schall, Elmer R., 7th & Elm sts., Camden (4)
Schauffler. W. G., 21 Morgan pl., Princeton (11)
Schapiro, Jos., 712 Palisade av., Union City (9)
Schectman, Vera, 385 Osborne ter., Newark (7)
Scheffler, W. A. H., 123 E. Atl. av., Audubon (4)
Schenk, Jos. R., 508 Central av., Plainfield (20)
Schept, S. S., 523 37th st., Union City (9)
Schiffman, Samuel, 18 Schuyler av., Newark (7)
Schildkraut, J. M., 170 W. State st., Trenton (11)
Schiller, Nicholas, 402 Clinton av., Newark (7)
Schisler, Milton M., Florence (3)
Schlein, August, 707 Park av., Hoboken (9)
Schlichter, C. H., 556 N. Broad st., Elizabeth (20)
Schmidt, Walter, Cliffside (2)
Schmitz, Mathias, Denville (14)
Schneider. C. A., 694 Clinton av., Newark (7)
Schneider, Louis, 874 S. 13th st., Newark (7)
*Schoening, G. A., 148 N. Clinton av., Trenton (11)
Schrack, Helen F., 726 Cooper st., Camden (4)
Schramm, Joseph A., 23 Darcy st., Newark (7)
Schulman. A. S., 4632 Boulevard, Union City (9)
Schulman, Robert, Mendem rd., Morristown (14)
Schulsinger, S., 136 Fleming av., Newark (7)
Schulte, H. A., 710 Clinton av., Newark (7)
Schultz, A. M., 379 Union av., Paterson (16)
Schunck, Tragott E., 58 9th st., Hoboken (9)
Schureman, J. P., 92 Bayard st., N. Brunsw'k (12)
Schurman, E. W., 710 Ocean av., Jersey City (9)
Schwartz, Henry C., Atco, N. J. (4)
Schwarz, B. T. D., 2801 Hudson Boulevard, J. C.(9)
Schwarz, Emanuel, 561 High st., Newark (7)
Schwarz, Henry J., 5560 Boulevard, N. Hudson (9)
Schwarz, W. J. A., 334 7th st., Jersey City (9)
Scott, Elmer A., 40 E. Front st., Red Bank (13)
Scott, F., Franklin (19)
Scott, Fred W., 103 Bayard st., New Brunswick(12)
Scott, George, 9 S. Penn. av., Atlantic City (1)
Scott, G. V., 42 Boyd av., Jersey City (9)
Scott, Karl M., 101 S. Indiana av., Atlantic City (1)
Scott, Parry M., Beverly (3)
Scott, Robert H., 205 Roseville av., Newark (7)
Scott, Samuel G., 674 Bergen av., Jersey City (9)
Scranton, Chas. W., 31 Washington st., E. Or. (7)
Scribner, Charles H., 84 Ward st., Paterson (16)
Scruggs, Wm. J., 3005 K'rs'ge rd., Fairv-w,Cam.(4)

Scudder, F. D., 63 S. Fullerton av., Montclair (7)
Sealey, H. J., Dumont (2)
Seely, Roy, 78 N. Clinton st., Trenton (11)
Segal, Meyer, 514 Kaighn av., Camden (4)
Seidler, William F., 21 Ferry st., Newark (7)
Seidler, V. B., 16 Plymouth st., Montclair (7)
Seidman, Edwin A., 580 High st., Newark (7)
Seidman, Marcus, 580 High st., Newark (7)
Seifert, Edwin A., 11 The Crescent, Montclair (7)
Seigel, J. W., 96 S. 10th st., Newark (7)
Seitzick, Hannah E., 733 Hamilton av., Trenton(11)
Selinger, Samuel, 413 16th st., W. New York (9)
Sell, Frederick W., Irving st., Rahway (20)
Selover, Sarah E., Main st., South River (12)
Senseman, Theo., 3600 Pac. av., Atlantic City (1)
Sesta, Jos., 284 Montgomery st., Jersey City (9)
Sewall, Millard F., Bridgeton (6)
Sexsmith, George H., 719 Ave. C, Bayonne (9)
Seymour, E. T., Tenafly (2)
Shafer, Albert H., 409 Cooper st., Camden (4)
Shafer, Fred W., 634 Penn. av., Camden (4)
Shangle, Milt A., 34 Prince st., Elizabeth (20)
Shannon, James B., 56 Church st., Montclair (7)
Shapiro, David, 104 Passaic av., Passaic (16)
Shapiro, Louis, 279 Schley av., Newark (7)
Shapiro, Louis G., 375 Broadway, Paterson (16)
Shapiro, Maurice, 921 Ave. C, Bayonne (9)
Sharp, Charles E., Port Morris (6)
Sharp, Jennie S., 726 Cooper st., Camden (4)
Shaul, F. G., 10 Washington st., Bloomfield (7)
Shaw, Ernest B., Collingswood av., Collingswood(4)
Shaw, Joseph B., 119 S. Warren st., Trenton (11)
Sheets, C. C., Paulsboro (8)
Shenfeld, Isaac, 501 Pacific av., Atlantic City (1)
Shepard, R. M., 170 Broadway, Paterson (16)
Sheppard, A. G., Elmer (6)
Shepperd, Frank R., Millville (6)
Sherk, A. Lincoln, 2647 Westfield av., Camden (4)
Sherman, Byron G., Maple av., Morristown (14)
Sherman, Elbert S., 671 Broad st., Newark (7)
Sherman, W. E., Geo. & Schureman, N. Bruns.(12)
Sherron, Clifford M., Salem (17)
*Shick, William F., S. Munn av., East Orange (7)
Shimer, A. Burton, 606 Pac. av., Atlantic City (1)
Shimer, Floyd A., Phillipsburg (21)
Shipman, Frank C., 3663 Boulevard, Jersey City (9)
Shippe, David N., Midvale (16)
Shirrefs, R. A., 55 Broad st., Elizabeth (20)
Shivers, C. H. deT., 121 S. Ill. av., Atlantic City (1)
Shivers, Chas. H., Sr., 121 S. Ill. av., Atl. City (1)
Shook, B. E., 166 Bergen av., Jersey City (9)
Shope, E. P., 956 Newton av., Camden (4)
Shull, J. Virgil, 320 High st., Perth Amboy (12)
Shulman, Abraham, 379 Main st., Paterson (16)
Sica, Samuel, 431 E. State st., Trenton (11)
Sickel, Harry L., Woodbury (8)
Sieber, Isaac G., 204 Merchant st., Audubon (4)
Silk, Chas I., 189 Rector st., Perth Amboy (12)
Sill, John B., 1129 Hamilton av., Trenton (11)
Silver, E. Drew, Hightstown (11)
Silver, George A., Hightstown (11)
Silver, H. B., 357 Hawthorne av., Newark (7)
Silverman, Theo. M., 105 Elmora av., Elizabeth(20)
Silvers, Homer I., 16 S. Suffolk av., Atl. City (1)
Silverstein, B. J., 32 Hillside av., Newark (7)
Simkins, Ray, Bridgeton (6)
Simmon, A. V., 720 Prospect st., Maplewood (7)
Simon, Ludwig, 214 Ferry st., Newark (7)
Simons, Morris L., 174 Washington st., Passaic(16)
Simonson, Louis, 80 Millington av., Newark (7)
Sinclair, Donald B., Princeton (11)
Sinexon, Henry L., Paulsboro (8)
Singer, Max, 197 Hillside av., Newark (7)
Sinkinson, C. D., Jr., Prof. Bldg., Atlantic City (1)
Sinson, Archibald, 535 Westfield av., Elizabeth(20)
Sinton, John Y., Imlaystown (11)
Sirott, Barnett H., State st., Perth Amboy (12)
Sista, Charles R., 476 Hamilton av., Trenton (11)
Sisserson, W. W., 425 Summit av., Westfield (20)
Skwirsky, Jos., 130 Watson av., Newark (7)
Slack, Clarence J., 230 W. State st., Trenton (11)
Slaff, F., 16 Grove st., Passaic (16)
*Slattery, Mary E., Vineland (6)
Sloan, Samuel L., 152 Belmont av., Paterson (16)
Slobodien, Benj. F., Smith st., Perth Amboy (12)
Slocum, Harry B., Bath av., Long Branch (13)
Small, E. Laster, Medford (3)
Smalley, Mahlon C., Gladstone (18)
Smalley, Sara D., 530 Clifton av., Newark (7)
Smalzreid, Elmer W., 167 N. Grove st.,E.Orange(7)
*Smith, Arthur L., 62 Bayard, New Brunswick(12)
Smith, Byron J., 347 16th av., Irvington (7)
Smith, Charles B., Washington (21)
Smith, C. D., Ridgewood (2)
Smith, Ellis L., Soho Hospital, Belleville (7)
Smith, H., 1063 S. Clinton av., Trenton (11)
Smith, James D., 701 N. 6th st., Camden (4)
Smith, J. Vincent, 463 State st., Perth Amboy (12)
Smith, L. H., 32 Washington st., East Orange (7)
Smith, Malcolm K., 79 Maple av., Morristown (14)
Smith, Marcia V., Ocean City (6)
Smith, Percy L., Greystone Park (14)
Smith, Thomas J., Bridgeton (6)
Smith, W. H., 100 King's Hwy. W., Haddonfield(4)
Smith, Warren H., Newton (19)
Smith, W. Henly, 128 W. State st., Trenton (11)
Smith, Wm. R., 42 Westfield av., E. Roselle Pk.(20)
Snavely, Earl H., City Hospital, Newark (7)
Snedecor, A. W., 580 Washington av., Belleville (7)
Snedecor, S. T., Hackensack (2)
Snyder, J. E. C., 1023 Garden st., Hoboken (9)
Sobin, Julius, 77 13th av., Newark (7)
Solomon, David, 18 W. 22d st., Bayonne (9)
Sommer, G. N. J., 120 W. State st., Trenton (11)
Souder, Louis R., 5 Victoria av., Ventnor City (1)
Spano, Frank, 912 Hudson av., Union City (9)
Spath, George B., 722 Hudson st., Hoboken (9)
Spaulding, H. J., 512 45th st., Union City (9)
Spence, H., 123 Fairview av., Jersey City (9)
Spencer, Alvan, Dover (14)
Spencer, B. C. (no address) (20)
Spencer, Geo. T., 1101 E. Jersey st., Elizabeth (20)
Spencer, G. F., 101 S. Ind. av., Atlantic City (1)
Spencer, Ira T., Main st., Woodbridge (12)
Spickers, William, 6 Church st., Paterson (16)
Sprague, E. W., 86 Washington st., Newark (7)
Sprague, Seth B., 301 York st., Jersey City (9)
Squeir, Marcus F., 4 Pleasant pl., Arlington (9)
Staehle, Richard H., 34 Lyons av., Newark (7)
Staehlin, Edward, 15 Lincoln Park, Newark (7)
Stage, Jacob S., 601 Clinton av., Newark (7)
Stahl, Alfred, 55 Lincoln Park, Newark (7)
Stahl, Charles, 116 Lyons av., Newark (7)
Stalberg, Samuel, 1109 Pac. av., Atlantic City (1)
Stanton, Nath. B., Grant av., Plainfield (20)
Steadman, E. T., 107 Christopher st., Montclair(9)
Steele, Stephen, 500 Wood av., Linden (20)
*Steffens, Chas. T., Dunellen (12)
Stein, Emil, 607 Park av., Elizabeth (20)
Stein, Harry M., 227 W. Broadway, Paterson (16)
Stein, Isidore, 210 Elizabeth av., Elizabeth (20)
Stein, Jacob M., 68 Columbia ter., Weehawken (9)
Stein, L. A., 205 Market st., Trenton (11)
Stein, Martin H., 163 2nd st., Elizabeth (20)
Steiner, Edwin, 19 Lincoln Park, Newark (7)
Stern, Arthur, 224 E. Jersey st., Elizabeth (20)
Stern, Samuel, 2815 Pacific av., Atlantic City (1)
Stevens, J. Thompson, 55 Park st., Montclair (7)
Stevens, Merton H., 3 N. Arlington av., E. Or. (7)
Stevenson, Geo. S., Hasbrouck Heights (2)
Stewart, Edwin F., Fair Haven (13)
Stewart, Irving J., Swedesboro (8)

Stewart, Walter B., 8 N. Tal'h's'e av., Atl. City(1)
Stewart, W. Blair, Pac. & N. Car. Aves.,Atl.City(1)
Stickles, Lloyd C., 49 Parkhurst st., Newark (7)
Stillwell, Aaron L., Somerville (18)
*Stilwagon, Phillip E., Bridgeport (8)
Stinson, Richard, 641 E. 18th st., Paterson (16)
Stockfisch, Robt., 3644 Boulevard, Jersey City (9)
Stokes, Earl B., 49 Prospect st., E. Orange (7)
Stokes, Joseph, Moorestown (3)
Stokes, Samuel Emlen, Moorestown (3)
Stone, A. L., 2838 Berkley st., Camden (4)
Stone, Chester T., Ridgewood (2)
Stone, R. G., State Hospital, Trenton (11)
Stout, Harry Wilson, Wenonah (8)
Stout, J. Phillip, 165 Jewett st., Jersey City (9)
Strahan, F. G., 473 Broadway, Long Branch (13)
Stratton, W. M., 1918 S. Broad st., Trenton (11)
Straub, H. H., 242 Springdale av., E. Orange (7)
Straughan, C. C., 23 Monmouth st., Red Bank (13)
Strauss, Arthur, 137 Pavil. av., Long Branch (13)
Street, D. B., 27 Woodlawn av., Jersey City (9)
Strickland, George W., 123 1st av., Roselle (20)
Strom, A., 410 N. 7th st., Plainfield (20)
Stuart, Alex. A. S., Ridgefield Park (2)
Stuart, J. Earle, 552 E. 2nd st., Plainfield (20)
Stuart, W. C., 518 Hudson st., Hoboken (9)
Subin, Harry, 1904 Pacific av., Atlantic City (1)
Sucoff, Moses C., 158 Hamilton av., Passaic (16)
Sullivan, Chas. J., 57 Paterson st., N. Bruns. (12)
Sullivan, George F., 510 Hudson st., Hoboken (9)
Sullivan, James A., 668 Jer. av., Jersey City (9)
Sullivan, Margaret N., 2600 Boulevard, Jer. City(9)
Sullivan, Michael Joseph, Englewood (2)
Sulouff, Henry S., 5 Corners Bldg., Jersey City (9)
Summerill, Garnett, 330 Cooper st., Camden (4)
Summerill, John M., Pennsgrove (17)
Summers. A. D., Princeton, N. J. (11)
*Summers, William J., Boonton (14)
Surnamer, Isaac, 345 Broadway, Paterson (16)
Suran, Carl A., Prof. Arts Bldg., Atlantic City (1)
Sutherland, W. W., 295 Broadway, Paterson (16)
Sutphen, E. Blair, 26 Maple av., Morristown (14)
*Sutton, Fred A., 156 No. Day st., Orange (7)
Suydam, John L., Church st., Jamesburg (12)
Swayze, Alvah A., Hackensack (2)
Sweeney, William J., 28 Clifton ter., Union City(9)
Swern, Nathan, 130 W. State st., Trenton (11)
Swiney, Merrill A., 325 Ave. C, Bayonne (9)
Synnott, M. J., 34 S. Fullerton av., Montclair (7)
Szerlip, L., 31 Lincoln Park, Newark (7)

Taber, L. R., 266 Van Houten st., Paterson (16)
Taggert, Thomas D., 25 S. Indiana av., Atl. City (1)
Tannert, C. H., 331 33rd st., Woodcliff (9)
Tansey, W. A., 520 Sanford av., Irvington (7)
Tarbell, Henry A., 11 Pennington st., Newark (7)
Tataryan, H., 422 New York av., Union City (9)
Taylor, G. Herbert, 590 Ridge av., Maplewood (7)
Taylor, Walt. A., 450 Rutherford av., Trenton (11)
Teeter, Charles E., 418 Orange st., Newark (7)
Teeter, John N., Englewood (2)
Teimer, Theodore, 17 Hillside av., Newark (7)
Temes, J. Howard, 2280 Boulevard, Jersey City (9)
Temple, Arthur H., 164 Jefferson, Passaic (16)
Tenney, Albert S., 650 Central av., E. Orange (7)
Terhune, P. H., 171 Paulson av., Passaic (16)
Terk, A. P., 381 Palisade av., Union City (9)
Tether, R. K., Closter (2)
Thayer, Henry W., 28 Dodd st., Bloomfield (7)
Thomas, Floyd A., Flemington (10)
Thomas, George N., Vineland (6)
Thomas, J. H., Jr., 270 Lenox av., S. Orange (7)
Thomas, Thomas S., 135 South st., Morristown(14)
Thompson, A. B., 479 Highland av., Orange (7)
Thompson, Arthur F., 22 Wash. st., E. Orange (7)
Thompson, C. S., 125 Weequahic av., Newark (7)
Thompson, David C., 98 Broad st., Bloomfield (7)
Thorne, Nathan, Moorestown (3)
Thorne, Wm. P., Main st., Butler (16)
Thornhill, Arthur C., 47 Forest st., Montclair (7)
Thum, Ernest, 819 Ave. C, Bayonne (9)
Tidaback, J. D., 52 Beauvoir av., Summit (20)
Tidwell, G. W., Wallington (2)
Tidwell, H. F., 229 16th st., W. New York (9)
Tilton, W. S., Asbury Park (13)
Timlin, James W., 64 Beech st., Arlington (9)
Titman, Russell E., 275 Dodge st., E. Orange (7)
Tobey, F. J., 11 Hazelwood av., Newark (7)
Todd, Francis H., Auborn st., Paterson (16)
Tomkins, William, Ridgewood (2)
Tommassi, Chas. F., 166 Lafayette st., Newark (7)
Tomlin, H. Hulburt, Wildwood (5)
Tompkins, Grenelle B., Flemington (10)
Tooker, Norman B., Princeton (11)
Topkins, Isidor T., Califon (10)
Torrey, Eugene, 1500 Pacific av., Atlantic City (1)
Towbin, Adolph, Lakewood (15)
Townsend, I., 140 W. State st., Trenton (11)
Townsend, J. B., Ocean City (5)
Townsend, M. E., P. O. Box 703, Atlantic City (1)
Townsend, Theo. E., Westwood (2)
Toye, John E., 590 Kearny av., Arlington (7)
Tracy, George T., Beverly (3)
Traub, Paul, 27 Richey pl., Trenton (11)
Traverso, Daniel, Belmar (13)
Treiber, Benj. A., 626 Perry st., Trenton (11)
Trentzsch, Philip J., 204 Berkley av., Bloomfield(7)
Trippe, C. M., 702 Asbury av., Asbury Park (13)
Trossback, Herman, Bogota (2)
Truax, Alfred J., Boonton (14)
Tucker, W. S., 20 E. Kinney st., Newark (7)
Tuers, George E., 18 Church st., Paterson (16)
Turner, I. F. P., Broad st., B'k Bldg., Trenton (11)
Turner, Wm. F., 519 Magie st., Elizabeth (20)
Tweddel, Geo. K., 156 Paterson st., Paterson (16)
Twitchell, A. B., 162 S. Orange av., South Orange(7)
Tymeson, Walt. R., Metropolitan Bldg., Orange (7)
Tyndall, H. H., 83 Highwood ter., Weehawken (9)
Tyrrell, Geo. W., 380 State st., Perth Amboy (12)
Tyson, Francis B., Leonia (2)

Udinsky, Hyman J., 29 Passaic av., Passaic (16)
Ulan, Oscar, 174 Fleming av., Newark (7)
Ulmer, Chester I., Gibbstown (8)
Ulmer, David H. B., Moorestown (3)
Underwood, J. Harris, Woodbury (8)
Updyke, Fannie B., 31 2nd st., Weehawken (9)
Upham, C. H. E., 399 Westfield av., Elizabeth (20)
Upham, Helen T., 305 3d av., Asbury Park (13)
Uptegrove, Edward P., Vernon (19)
Urbanski, Adrian X., 241 State st., P. Amboy (12)
Urbanski, Mat. F., 314 Wash. st., Perth Amboy (12)
Urevitz, A., 495 Clinton av., Union City (9)
Uzzell, Edw. F., 2703 Pacific av., Atlantic City (1)

Vaczi, Stephen, 801 S. Broad st., Trenton (11)
Vail, Herbert B., 301 Washington av., Belleville (7)
Vail, James Lindley, 24 Holly st., Cranford (20)
Vanatta, Geo. W., 224 N. Park st., East Orange (7)
Van Deusen, Edwin H., Vineland (6)
Van Dyke, Joseph S., Palisade Park (2)
Van Dyke, Benjamin S., Cranbury (12)
Vanderbeek, And'w B., 174 Broadway, Paterson (16)
Vanderhoff, I. M., 9 Clinton st., Newark (7)
Van Emburg, G. H., 378 Chestn't st., Arlington(7)
Van Erde, A. H., Lafayette av., Hawthorne (16)
Van Gaasbeek, Harvey D., Sussex (19)
Van Horn, A. F., 514 Central av., Plainfield (20)
Van Mater, John H., 2nd av., Atl. Highlands (13)
Van Schott, Gerald J., 254 L'x'gt'n av.,Passaic(16)
Van Sciver, John E. L., 106 Broadway, Camden (4)
Vanneman, Joseph S., Princeton (11)

Van Ness, H. R., 218 Mt. Prospect av., Newark (7)
Van Neste, George V., Hopewell (11)
Van Oehsen, W. H., Bradley Beach (13)
Van Orden, Thomas D., Ramapo av., Pompton (16)
Van Riper, A. Ward, 605 Main st., Passaic (16)
Van Urk, F. T., 149 Lexington av., Passaic (16)
Van Winckle, J. S., 297 Broadway, Paterson (16)
Vaughan, James M., 825 Kaighn av., Camden (4)
Veenstra, William, 90 Auburn st., Paterson (16)
Vilapiano, Jos. G., 10 Mattison av., Asbury Pk.(13)
Vinciguerra, Michael, Elizabeth av., Elizabeth (20)
Vogel, H. A., Eliz. General Hosp., Elizabeth (20)
Von Deeston, H. T., 268 Palisade av., Hoboken (9)
Von Hofe, F. H., 255 Conway C't., E. Orange (7)
Voorhees, Lamar, Newton (19)
Voorhees, F. E., 83 Lincoln Park, Newark (7)
Voorhees, H. C., Bayard st., New Brunswick (12)
Voorhies, William S., Mendham (14)
Vosburgh, Fred, 136 Prospect st., Passaic (16)
Vostrosablin, N. A., Grand st., Jersey City (9)
Vreeland, Hamilton, 132 S. Irving st., Ridgew'd(9)
Vreeland, R. D., L. Bamberger & Co., Newark (7)
Vreeland, Ralph J., 44 Church st., Paterson (16)
Vreeland, Wm. N., 32 Bergen av., Jersey City (9)
Vroom, W. L., Ridgewood (2)

Wade, S. F., 555 Newark av., Elizabeth (20)
Wagner, E. C., Fitkin Bldg., Asbury Park (13)
Wagner, Otto, 111 Stiles st., Elizabeth (20)
Wainwright, F. P., Bridgeton (6)
Wainwright, J. M., 256 Montgomery st., Jer. City(9)
Waite, George N., 569 High st., Newark (7)
Wakeley, W. E., Meadowbrook, So. Orange (7)
Wakeley, William A., 120 Main st., Orange (7)
Wallhauser, H. J. F., 31 Lincoln Park, Newark (7)
Walker, Harold G., Wyckoff (16)
Walker, L. M., 1329 Pac. av., Atlantic City (1)
Walker, R. B., 1st av., Highland Park (12)
Walsh, Ronald J., 323 Chestnut st., Roselle (20)
Walsh, Thos. J., 240 S. Broad st., Elizabeth (20)
Walsh, T. M., Hasbrouck Heights (2)
Walton, Gordon G., 17 Church st., Paterson (16)
Walton, R. W., 48 N. Fullerton av., Montclair (7)
Wantoch, Joseph, Carteret (12)
Ward, Albert H., 404 Totowa av., Paterson (16)
Ward, Alfred W., Demarest (2)
Ward, George Harold, Englewood (2)
Ward, Gertrude P., Park pl., Bloomfield (7)
Ward, Joseph, 780 Broadway, Bayonne (9)
Ward, Leo J., 137 E. Jersey st., Elizabeth (20)
Ward, Lettie A., 325 Cooper st., Camden (4)
Ward, Wm. R., 112 Chancellor av., Newark (7)
Warncke, Frank H., 525 Westfield av., Elizabeth(20)
Warner, G. VanV., E. Front st., Red Bank (13)
Warner, W. H. A., 444 Central av., E. Orange (7)
Warren, Charles B., Bergenfield (2)
Warren, D. E., 265 Gregory av., Passaic (16)
*Was, F. T. J., 75 E. 16th st., Paterson (16)
Washburn, Philip G., Greystone Park (14)
Washington, W. S., 520 Parker st., Newark (7)
Wassing, Hans, 282 Broadway, Paterson (16)
Waters, Edw. G., 123 Jewett av., Jersey City (9)
Waters, C. H., 126 W. State st., Trenton (11)
Watkins, Robert E., 517 5th av., Belmar (13)
Watson, F. S., 811 Stuyvesant av., Trenton (11)
Watts, Wilbur, 436 E. State st., Trenton (11)
Way, Clarence W., Sea Island City (5)
Way, Eugene, Dennisville (5)
Way, Julius, Cape May Court House (5)
Webb, Wilson D., Hackensack (2)
Weber, Francis C., 210 Mt. Prospect, Newark (7)
Weber, J. F., 264 Main st., South Amboy (12)
Weber, Walter D., 305 23rd st., Union City (9)
Webner, C. Fred, 71 Lincoln Park, Newark (7)
Wechsler, Jos., 3460 Boulevard, Jersey City (9)
*Weeks, David Fairchild, Skillman (18)
Wegryn, Louis S., 250 1st av., Elizabeth (20)
Weigel, Edgar Wm., 727 Watch'g av., Plainfi'd(20)
Weigel, Elmer P., 503 Park av., Plainfield (20)
Weiner, J. R., Bangs av., Asbury Park (13)
Weinmann, Max H., 714 Scotland rd., Orange (7)
Weinstock, M. B., 206 Ridgewood av., Newark (7)
Weisler, Howard, 491 Centre st., Trenton (11)
Weiss, Lazare, 404 Bergen st., Newark (7)
Weiss, Louis, 849 S. 11th st., Newark (7)
Weiss, M. J., 734 Ave. C, Bayonne (9)
Weiss, Selma, 330 Belmont av., Newark (7)
Weithaase, Helen E., Vineland (6)
Wendel, Aug. V., 205 Littleton av., Newark (7)
Wendelboe, L. T., 558 S. 10th st., Newark (7)
Wenger, H. L., 576 Broadway, Paterson (16)
West, Edgar L., 443 E. State st., Trenton (11)
West, Gordon F., 2704 Westfield av., Camden (4)
Westcoat, A. S., 615 Pacific av., Atlantic City (1)
Westcott, William C., Del. & Pac. av., Atl. City (1)
Westerhoff, Peter D., Midland Park (2)
Westney, Alfred W., 3005 Pac. av., Atlantic City (1)
Weston, C. G., 27 Woodland av., Glen Ridge (7)
Wetterberg, Louis F., 389 School st., W'dbridge(12)
Whaland, Berta, Bridgeton (6)
Whelan, Edw. P., 231 Franklin av., Nutley (7)
Wheeler, Jas. A., 304 Academy st., Jersey City (9)
Wherry, Elmer G., 323 Clinton av., Newark (7)
White, Hugh M., 901 Summit av., Jersey City (9)
White, R., Franklin (19)
White, Thomas J., 221 Union st., Jersey City (9)
Whitman, Loyd B., Bergenfield (2)
Whitehorne, Henry B., 32 Grove av., Verona (7)
Whiticar, John H., Ocean City (5)
Wigg, Cuthbert, Boonton (14)
Wilbur, Franklin L., 504 Park av., Asbury Pk.(13)
Wilbur, Frederick P., Franklin (19)
Wilbur, G. F., 502 Asbury av., Asbury Park (13)
Wilbur, William Lane, Hightstown (11)
Wild, Frederick A., Bound Brook (18)
Wilentz, Wm. C., 188 Market st., Perth Amboy(12)
Wilkinson, B. E., 266 Van Houten st., Paterson(16)
Wilkinson, George H., Moorestown (3)
Wilkinson, G., 542 Bergen av., Jersey City (9)
Willan, E. H., 86 S. Oraton P'kw'y, East Orange (7)
Willard, Harry S., 44 Church st., Paterson (16)
Williams, Frank, 260 W. Jersey st., Elizabeth (20)
Williams, G. W., 217 N. Warren st., Trenton (11)
Williams, H. D., 527 E. State st., Trenton (11)
Williams, H., 230 Lexington av., Passaic (16)
Williams, Irving D., 433 Mt. Prosp't av., N'w'rk(7)
Williams, Louis C., Lambertville (10)
Williams, L. E., Madison (14)
Williams, W. C., Rutherford (2)
Williamson, W. L., 22 W. 22nd st., Bayonne (9)
Willis, John, 536 Summit av., Jersey City (9)
Willner, Irving, 18 Waverly av., Newark (7)
Wiloughby, William F., Englewood (2)
Wilson, Charles W., Vineland (6)
Wilson, Herbert H., Bridgeton (6)
Wilson, John G., 280 High st., Perth Amboy (12)
Wilson, L. R., 3320 Federal st., Camden (4)
Wilson, N. L., 410 Westminster, Elizabeth (20)
Wilson, Robert B., 86 Broad st., Red Bank (13)
Winn, Samuel L., 1902 Pac. av., Atlantic City (1)
Winslow, John H., Vineland (6)
Winter, Daniel T., Jr., Gifford av., Jersey City (9)
Winters, Walt M., 288 Broadway, Paterson (16)
Wintsch, Carl H., 841 S. 12th st., Newark (7)
Wise, L. D., 119 Morris av., Long Branch (13)
Wismar, William F., 108 Belmont av., Newark (7)
Wisnack, Meyer, 318 Broadway, Paterson (16)
Woelfle, Henry E., 907 Summit av., Jersey City (9)
Wolf, Frank A., Phillipsburg (21)
Wolfe, William J., Chatham (14)
Wolfe, William W., 383 Mulberry st., Newark (7)
*Wolff, Ferd. C., 1109 Garden st., Hoboken (9)

Wolfs, Jean F., 3 Leslie st., Newark (7)
Wolfson, H., 330 Broadway, Paterson (16)
Wolowitz, Harry B., Hackensack (2)
Wood, E. LeRoy, 31 Lincoln Park, Newark (7)
Wood, Oran A., Paulsboro (8)
Woodhouse, Alfred, Toms River (15)
Woodruff, Dare, Vineland (6)
Woodruff, R. H., Hackettstown (21)
Woodruff, S. R., 16 Enos pl., Jersey City (9)
Woods, A. Lincoln, Main st., South River (12)
Woodworth, Lucius J., 283 Franklin st., Bloomfl'd(7)
Woody, McIver, Standard Oil, 26 B'way, N. Y.(20)
Woolf, Bernard H., 15 Heddon ter., Newark (7)
Worcester, George F., Englewood (2)
Wort, Frederick J., 1080 Broad st., Newark (7)
Wrensch, Alex. E., 79 Valley rd., Montclair (7)
Wright, Eliz. T., 52 Oak av., Metuchen (1)
Wright, Howard E., Princeton (11)
Wurts, Margaret M., Englewood (2)
Wyker, Arthur W., 1 Park pl., Bloomfield (7)
Wyler, Max, Fort Lee (2)

Yaeger, L. A., 470 Hamilton av., Trenton (11)
Yaguda, A., 651 High st., Newark (7)
Yates, John S., 414 Ellison st., Paterson (16)
Yazujian, Dikran M., E. State st., Trenton (11)
Yeaton, William L., 204 11th st., Hoboken (9)
Yood, Rapheal, 410 Grand st., Roselle (20)
Young, F. C., Westwood (2)
Young, Warren H., 41 Lincoln st., Little Falls (16)

Zandt, Frederick B., Hamilton Square (11)
Zeglio, Peter J., North Plainfield (18)
Zehnder, Anthony C., 188 Roseville av., Newark(7)
Zeigler, Oscar, Wildwood (5)
Zenneck, J. F., 38 King av., Weehawken (9)
Zweigel, I., 819 S. 15th st., Newark (7)

THE N.Y. ACADEMY OF MEDICINE
SEP 1929

Issued as a Supplement to the September, 1929, Journal

OFFICIAL TRANSACTIONS

163rd Annual Meeting of the Medical Society of New Jersey

Held at Atlantic City, June 12, 13, 14, 15, 1929

HOUSE OF DELEGATES

Wednesday Morning Session

June 12, 1929

The meeting of the House of Delegates of the Medical Society of New Jersey, held at Haddon Hall, Atlantic City, New Jersey, convened at 9:45 a. m., Dr. E. R. Mulford, presiding.

President Mulford: The House of Delegates will please come to order. A legal quorum being present, I now declare the 163rd Annual Meeting of the Medical Society of the State of New Jersey open for the transaction of business.

The first order of business is the report of the Committee on Credentials, Dr. William J. Carrington, Chairman.

Dr. W. J. Carrington: Mr. President and Members: By reference to the printed program, you will find that there are the following groups eligible to register at this convention: 7 Officers; 27 Trustees; 5 Councilors; 16 Fellows; and delegates as follows. The first figure I read from each county will refer to the permanent and the last to the annual delegates:

	Permanent Delegate	Annual Delegate
Atlantic County	11	5
Bergen County	11	4
Burlington County	4	2
Camden County	9	5
Cape May County	2	1
Cumberland County	4	2
Essex County	54	24
Gloucester Conty	3	1
Hudson County	38	15
Hunterdon County	3	2
Mercer County	13	5
Middlesex County	10	1
Monmouth County	7	2
Morris County	6	3
Ocean County	2	2
Passaic County	19	2
Salem County	2	1
Somerset County	4	1
Sussex County	1	1
Union County	16	7
Warren County	3	1
	222	87

This makes a grand total of Officers and Delegates of 369.

There have registered thus far delegates and guests numbering over 300; we opened the registration desk yesterday about noon. Just what the total registration will be, of course, no one knows.

President Mulford: The next order of business is the reading of minutes of the 1928 meeting.

Secretary Morrison: Inasmuch as the minutes have been published in the Journal, I move that they be accepted as printed.

The motion was seconded and carried.

President Mulford: Next is the report on Permanent Delegates and report of Nominees for Permanent Delegates.

Report on Permanent Delegates

There are 229 names on the roll of Permanent Delegates. I regret to report that during the year we have lost by death 7 Delegates: Drs. William H. Iszard, of Camden, who was the oldest living delegate; William A. Wescott, of Camden; Walter P. Glendon, of Cumberland; Ralph Hunt, Mefford Runyon and Samuel E. Robertson, of Essex; and Arthur L. Smith, of Middlesex. Many of these delegates were in the prime of life, had been very active in our deliberations, and their comparatively early passing has been a great loss to our society.

The remaining delegates are in good standing.

Nominations made in accordance with the provisions of the Constitution and By-Laws have been received as follows: Camden, Drs. J. E. Howard, William J. Raughley, Thomas K. Lewis and Joseph E. Roberts. From Essex, Drs. Max Danzis, Edwin Steiner and W. A. Tansey. In the event of the new Constitution and By-Laws being adopted at this session I will move that the election of Permanent Delegates be deferred until Saturday morning.

Rspectfully submitted.

J. B. Morrison,
Secretary.

President Mulford: You have heard these reports and there has been a motion to adopt made and seconded. Are there any remarks on this motion?

The question was put and the motion carried.

President Mulford: Next is the report of the Committee on Arrangements and Program, by Dr. M. W. Reddan.

Dr. M. W. Reddan: Really, at this time there is very little that the Committee on Arrangements and Program can report. I have been downstairs all morning trying to straighten out the exhibitors, as we are curtailed in space on account of the rebuilding. The revenue is going to be comparatively less and yet we are doing fairly well. At the meeting of the Board of Trustees last night it was suggested that we report the money received, the money expended and the balance turned over to the Treasurer. In our innate modesty, we didn't report in previous years what we had collected and spent, thinking it all came out of the same fund, out of the same pocket, but it was suggested that this was a very loose way of keeping accounts and evidently it is. For that reason I have been asked to report now last year's figures.

The total receipts from exhibit space rentals and the program amounted to $1008. From that was deducted 20% paid to the Secretary of the Committee, who does all the work of soliciting, preparing ads, preparing the exhibit, and doing for $360 what I wouldn't do personally for $1000. Then we had signs painted for the booths, for which we received $139, and ads brought the total to $1579. Our expenditures were $1538.52, and we turned over to the society a balance of $40.48. These really are society charges and while it appears that we only turned over $40.48, as a matter of fact we turned over $1538.52, plus the $40.48, because it is all spent in the interest of the society. For instance, we spent for the stenographer's service, $83.50 and traveling expenses for the Secretary of the committee, $76.76. That is used in going to the various cities to solicit ads for the program and exhibitors for the commercial exhibit. I managed to crib $20 out of the funds last year. We paid, through Mrs. James Hunter, on account of Society entertainment, $300; to the Foster Shop, for prizes used at the dance, $16; tips to exhibit hall attendants, etc., $15; wires, long distance phone calls and taxis, $14.75. As I said last night, none of those taxis were used to go to the Silver Slipper or any place like that. Signs for committee rooms and registration desk, $13; signs for exhibit booths, $141; Rolling Chair Company, $231; Mrs. Harvey, for card party prizes, $21.90; post-office box rental, $6; Haddon Hall for talent, orchestra, hotel charges and incidentals, dance expenses, setting of exhibit floor, $467.12; paid to Haddon Hall for refreshments, card party, $88.25; movie and lantern operator, $25; watchman for exhibit hall, $20. Making a total of $1538.52.

While that doesn't appear in the published receipts of the Society, nevertheless it was all expended for the benefit of the society. As Dr. Morrison knows, I was a little bit reticent about calling attention to that and our balance turned in, thinking that as long as it was all out of the fund, it didn't make any difference but I can see his point of view that he wants a business accounting of the expenditure of that money because it represents part of the expense and also the income of the Society.

I don't know of anything special to report except that our registration is coming along nicely. We are solving the troubles of the exhibitors, moving them an inch this way and a half foot the other way, and telling them what fine fellows they are and also promising that every man who comes to this convention is going down and sign his name to every man's mailing list, whether he cares about receiving anything or not. The exhibitors bring in a lot of money. Further than that, they bring in a lot of scientific exhibits. They present points of view that you probably otherwise wouldn't get, so please stroll around and look at their exhibits. It is a bore to all of you but go down because it is just as much your business as it is mine to sign those exhibit cards; fraternize with the exhibitors and get them to come again.

This year every man who advertises in the program, who exhibits in the hall, has had the approval of the American Medical Association. There is one exception, a preparation that has not been before the Council yet, but a telegram from the Council of New and Non-Official Remedies said, "Go ahead and use it until such time as we tell you you shouldn't use it." We have been trying to establish the policy, and I think we shall succeed, that when a man exhibits or advertises with us, he has the stamp of approval of the Society, just as a man, a firm or an individual cannot advertise in the Saturday Evening Post unless he is high-class and ethical in every way. We have turned down more exhibitors this year than we have accepted, first because they were not ethical or didn't come up to the standard. I have no doubt we can fill the largest space we can get in this or any hotel next year because they are going to be bidding for space on the ground that if they come in, they will have approval of the Society and can use that in their advertising.

President Mulford: Next we shall have the

report of the Committee on Scientific Work, Dr. W. E. Darnall, Chairman.

Dr. Darnall was not present.

President Mulford: Report of the Committee on Publication, Dr. Charles D. Bennett, Chairman.

Dr. Bennett presented his prepared report, with the following interpolation: These total receipts will differ from Dr. Marsh's statement because my receipts are given as gross and from those gross receipts are deducted the commissions and discounts and Dr. Marsh gets what is left.

Report of Publication Committee for Year Ending June 1, 1929

The Journal has had a prosperous year, as may be noted from the details that follow:

Our receipts from advertising exceed the year ending June 1, 1928, by about $2000. On the other hand, our expenses have also increased, which is inevitable because of the larger size of the Journal and the greater number of copies printed monthly, necessitated by the increasing size of the Society and our much extended mailing list, due largely to the more numerous advertisers and our steadily increasing complimentary list. However, the Journal is not conducted as a money-making project, and from the financial standpoint we have no reason for dissatisfaction.

Respectfully submitted,
Charles D. Bennett,
Chairman Publication Committee.

Report, June 1, 1928, to June 1, 1929

RECEIPTS

Balance on hand May 31, 1928	$ 588.71	
Advertising (including A.M.A. rebate $286.72)	10,113.99	
Subscriptions (extra)	34.50	
Sale of Journal (extra copies)	28.44	
Bills Receivable	948.48	
Cash on hand June 1, 1929	555.25	
Subscriptions Account — Society Members	2,464.00	
TOTAL		$14,733.37

EXPENDITURES

Commissions paid (Coöperative)	$ 700.61	
Amount of Commissions O.K.'d local canvasser	161.25	
Discounts paid	210.97	
Chairman's Salary	500.00	
Chairman's Expenses	143.27	
Printing and Mailing of Journal O.K.'d	11,693.21	
Reprints O.K.'d	198.00	
Index	124.00	
TOTAL		$13,731.31

COMPARITIVE STATEMENT

	1927–1928	1928–1929
Advertising receipts	$ 8,119.99	$10,113.99
Subscriptions (regular)	2,468.00	2,464.00
Subscriptions (extra)	48.60	34.50
Sale of Journal	43.93	28.44
Printing, Mailing Journal	10,103.71	11,693.21
Reprints	91.75	198.00
Commissions	866.51	861.86
Discounts	211.25	210.97

Report, June 1, 1928, to June 1, 1929

SUMMARY

Amount of advertising secured by Cooperative	$ 3,672.54
Amount of advertising secured locally	5,081.90
Amount of discount and commission allowed Coöperative	850.28
Amount of discount allowed locally to advertisers	61.30
Amount of commission O.K.'d local canvasser	161.25
Total amount of advertising	10,113.99
Total cash receipts from all sources	8,152.06
Total amount paid Treasurer	8,152.06

Respectfully submitted,
Charles D. Bennett,
Chairman Publication Committee.

President Mulford: You have heard the report of the Chairman of Publication Committee; what is your pleasure?

Member: I move it be received, and that a vote of thanks be extended to the Chairman.

The motion was seconded and carried.

President Mulford: The next order of business is the Report of the Corresponding Secretary, Dr. Carrington.

Dr. Carrington was not present.

President Mulford: The next order of business is the Report of the Recording Secretary.

Dr. Morrison presented his prepared report, as follows:

Report of the Recording Secretary

Mr. President and Members
of the House of Delegates:

We open today the 163rd Annual Convention of the Medical Society of New Jersey.

Our total membership last year was	2525
Names on the Official List, April, 1929	2384
New and reinstated members to date	138
Total membership to date	2522
Number of deaths during the year	30

During the year I have attended 19 meetings distributed among 17 of the component societies. I am pleased to report a continuation of marked improvement in the affairs of the component societies. The scientific programs have been of a high order and the different societies are taking an advanced place in public affairs. There are many problems to be studied and solved by organized medicine today. Dr. Olin West, Secretary of the American Medical Association, in his presessional report to the House of Delegates, calls attention to some of these. In the great transitional phase of life in America today, where old standards are being swept aside and old traditions abandoned, physicians as a group are being subjected to greater pressure than any other profession. Government paternalism, legislative enactment, the great medical foundations, frequently managed without medical representation on

their boards of directors, the flood of loose talk about half-baked theories and the pernicious effect it is having on the public mind, the pay clinics being established in connection with colleges for medical education and to a lesser degree in connection with some of our larger hospitals, the inroads of compensation commissions on the practice of medicine often with the support of some of our own members, the continued commercialism of medicine, all have had baneful effects on the outlook for our profession.

As Dr. West well says, there never has been greater need for the compact and efficient organization of physicians than today. State and county societies should endeavor to make their influence felt. This can be accomplished by openly seeking to have representation in the legislative bodies of our different states, and by seeking representation in all public and semipublic organizations professing to aid in the alleviation of human suffering. Primarily, the ideas of such lay bodies are excellent but in many instances they are being carried into effect without medical advice and often, on this account, fail of their most effective accomplishment. We urge you to throw yourselves into this work not only for the good of the profession but to assist in carrying out one of our fundamental principles, that the great mass of the public shall have the very best medical attention at a figure which it can pay. We, as a group, should endeavor to stop commercialism in medicine and to drive out of the fold those physicians who place the accumulation of a competence above service to mankind.

With our recent great expansion in America large hospitals have grown up. We have several in New Jersey now and others are contemplated whose cost will be from one to three millions of dollars. Time was when many smaller hospitals were sufficiently endowed to be able to serve the public demand without fear of a very great deficit. With the adoption of recent business ideas hospital managers are planning to make every hospital pay its own way. The policies being adopted to this end are making great and unjust inroads upon the financial returns of the average physician. We should endeavor in New Jersey, before it is too late, to act through our membership in the Hospital Association of New Jersey to see that a policy is adopted in this state which will prevent establishment of pay clinics where fees charged approximate those of the average physician. Establishment of such clinics is partly our own fault. In late years we have been in the habit of making the traffic bear the highest cost. Many deserving people cannot afford to pay the exhorbitant fees asked. This has been brought to the attention of the Commission for Investigation of the Cost of Medical Care, and one of the prominent business men of America, whose name is a household word, has said that *if the medical profession cannot or will not give medical care to the great public at a cost which it can afford to pay,* the great industrial magnates will see to it that such care is provided. If "industry", in America, puts its influence and pressure behind "state medicine", then state medicine will shortly be here.

Another matter I would earnestly call to your attention: The Medical Society of New Jersey was one of the first to place at the service of the public a Field Secretary. Those of you who do not observe closely the trend of affairs may have failed to see her importance to the advancement of our profession. She has been seeking public audiences wherever possible to carry her message of good health and medical care to the people at large. Many associations, and especially business men's clubs, have given her hearings. Recently Dr. Ireland, of the State Board of Education, who will address you during this session, has stated that he will make it possible for her to address every school child in New Jersey. In all of these talks relative to the care of health and the avoidance of disease she urges her hearers to call in the family physician whenever the necessity arises. Have you visualized what it will mean to have the growing children in New Jersey urged to keep in touch with the family physicians? This influence is being exerted on them at an age when impressions sink in deeply. We cannot today fully evaluate the returns to our profession of this Field Secretary's work. The officers of the Medical Society of New York have been so impressed with her work and its great possibilities that they will request the House of Delegates at their meeting this month to engage the services of a Field Secretary at a cost in advance of ours.

We urge you to think over the matters referred to in this report and to see to it that your public relations committee takes them up, adopting policies which will result in action.

One other matter I would like to call to your attention. Your officers, in conjunction with Dr. Thomas, President of Rutgers University, have planned a course of Medical Extension Study. The University will supervise the plan, outline the courses, do the necessary printing and advertising, while we will supply the teachers. Last year, Dr. Reik sent out a letter to the profession asking for voluntary speakers on such a plan and we are depending on them to carry out the planned courses of instruction. At first, these courses will be given in places remote from New York and Philadelphia, probably in the Atlantic counties and those in the north, leaving Camden, Gloucester, Mercer and Hudson out temporarily. The courses will be made intensely practical and hospital facilities will be largely used. The cost will be nominal. We urgently request your hearty coöperation in this new plan.

I cannot close this report without referring to the excellent work of the Welfare Committee this year. The Chairman of that committee, Dr. McBride, our First Vice-President who will tomorrow be raised to the Presidency, is too modest to refer to it in detail. This year, for the first time in our fight for the maintenance of proper medical standards, not a single bill introduced in the legislature by the cults was reported out of committee. This was entirely due to the work of our chairman and individual members of the Welfare Committee. We visited senators and assemblymen in their homes, or by appointment at their offices, and explained the effect proposed legislation would have upon the public. We were courteously received, the legislators showed marked interest in the different bills we opposed, and one of our senators went so far as to visit the editorial office of the Newark Evening News and protest against its editorial policy in respect to the osteopathic bill.

A great proportion of our success was due to the determined action of Dr. McBride in avoiding any semblance of lobbying at Trenton. A remark made to him by an assemblyman 3 years ago made a deep impression. This party said that he did not want any physician tugging at his coat tails in the assembly chamber or the corridors of

the State House when a bill was under consideration and he had probably decided just how he was going to vote. A great portion of our success in dealing with legislation has been due to the method adopted by Dr. Reik, the Secretary of the Committee, of sending to all members of the legislature personal letters analyzing each bill, not from a medical viewpoint but with reference to the effect it would have on the public. These letters proved so effective that we have seen them attached to copies of bills in the Bill Files on the legislators' desks at Trenton. We owe Dr. McBride and the members of this committee a debt of gratitude for their excellent accomplishments this year.

Respectfully submitted,
J. B. Morrison,
Recording Secretary.

President Mulford: Gentlemen, you have heard the Report of the Recording Secretary, what is your pleasure?

Member: I move that the report be received and that a vote of thanks be extended to him for this excellent work.

The motion was seconded and carried.

President Mulford: We shall next have the report of our Executive Secretary, Dr. Henry O. Reik.

Report of Editor and Executive Secretary

To the House of Delegates,
Medical Society of New Jersey.

Gentlemen:

Close of another fiscal year for the society requires presentation of a report of our labors during the passing 12 months, and as this happens to be the fifth annual report we have submitted, it affords a good opportunity to review the progressive development of this office over a five-year period. As a matter of fact, we have been actively at work only 4½ years but as the work for the summer months is well advanced and our own fiscal year ends at the close of September, we may well summarize events on the five-year basis.

(1) The Journal. In last year's report, attention was directed to the steady growth of the Journal, in point of size, and to efforts made toward increasing its value to all members. Figures to be presented this time are even more striking in character, because we are accustomed to estimating progress upon a decimal system and the five-year period referred to is available for contrasting the new with the old.

A bound volume of the Journal for the year 1924 contained 406 pages of reading matter; the volume for 1928 contained 854 pages; the volume for 1929 will probably pass beyond the mark of 1000 pages. Here we have a definite increase of 250% but, as an allowance should be made for the change in size of the printed page effected 2 years ago, we estimate that the current volume will be almost exactly 3 times the content size of the volume issued 5 years ago. To have trebled in size in the course of 5 years is no mean accomplishment. Measured by other means than that of page numbering, we arrive at the same result; that is to say, prior to 1924, the average size monthly was 36 pages, whereas for the first 4 months of the year 1929, the average has been 96 pages. From a monthly average of 4 original articles we have grown to an average of 10 for the past few months, and in this connection we may report that there are a sufficient number of original manuscripts now in hand, without counting upon anything to come from the annual convention, to carry the Journal at full capacity until October. Dr. Bennett has already directed your attention to the fact that increase in size and issue of the Journal has resulted in an increase of income from advertisements.

We would not like to have the Journal valued solely on its quantitative development; if it has not likewise developed in quality, this growth in size cannot be considered praiseworthy. During the past 4 years we have gradually added and developed special departments which the Editor considered of value to readers either in the sense of entertainment or of postgraduate study. These departments and the reasons for instituting them are as follows: Ethics; because there is unquestionably a need for maintenance of ethical conduct, and because the modern medical student does not seem to be so well instructed in ethical principles as was his predecessor of former times. Economics; because too little attention has been paid by the average physician to the business side of his profession, and this seemed to be the best means of attracting his attention to economic problems. Esthetics; because the busy physician, immersed in scientific and humanitarian problems and overwhelmed by the constant and insistent demands of his own profession, gives too little thought to those arts and sciences with which he should be familiar and from which he might gain some relaxation. Collateral Reading; introduced quite recently for much the same reasons as given in reference to Esthetics, and to offer reading suggestions to the physician who is too busy to keep pace with such semiprofessional literature as his own patients are devouring. The Woman's Auxiliary; because that young organization needs something in the nature of a directing influence to guide its forces into harmony with those of the state society. Lighthouse Observations; because we believed that a thoughtful review of recent literature on some particular subject each month would be preferable to abstracts selected at random and without any cohesion among those chosen. In Lighter Vein; because we hoped you would not lose sight of the fact that life itself is, at best, a joke. We have not mentioned Editorials, Current Events, Communications, or County Society Reports because they are standard parts of every society journal and call for no special comment; unless it be to say that in your journal the county society reports surpass in scientific value those of any other medical journal in this country. And we digress here to express appreciation of the services rendered by our county society reporters and by those who have prepared for us reports of the scientific work of some of the hospital, medical and surgical staffs.

In recounting at this time the various departments of the journal, and presenting our reasons for having established them, we are not trying to exploit our own work but endeavoring to ascertain whether you are getting the kind of journal you desire. Despite some infirmities, we can still pat ourselves upon the back and approve our own work; what we want to know is whether or not you are satisfied with the Journal "as is". Do you wish its continuance on present lines? Would you like to have it still further developed

through the publication of other matter of interest to the physicians? Will you name any specific improvement that might be attempted? Is there any particular thing you would like to have added to or taken out of the present format? We would like these questions answered because it is now desirable to determine some definite model to be followed. We can make it whatever you wish; can increase the number of pages indefinitely, or cut it back to smaller size if you find the present form too expensive to maintain. Last year we were running an average of 72 pages of reading matter monthly. Recently, we have reached the average of 96. The indications are that we shall have original articles enough offered to carry an average of 10 per month, but we do not have to accept all that are offered if you wish to decrease the number that may be published. The various departments described can be eliminated if you have not found them worth while. The time and labor involved, aside from the cost of printing, in running a Journal of the present size is considerable and it is for you to decide whether you wish your money spent in that manner. The Editor has developed what he considers a good state society journal, but he would like to have your views upon that subject and your instructions as to future procedures.

The only new suggestion the Editor has to offer, and upon this also he would like an expression of opinion, is the publication monthly of at least one editorial on scientific medicine, preferably signed articles by members of the Society. We have been using editorial space mainly for the business and economic affairs of the society. In the April issue, we used as a signed editorial a communication on education in obstetrics written by Dr. Cosgrove. That gave us the notion of publishing a similar editorial monthly and we should like to know what you think of the suggestion.

Since the preceding remarks were prepared for our presessional report, another Tristate Medical Conference has been held (at Pittsburgh, May 25) at which the topic for consideration was—What Constitutes an Ideal State Society Medical Journal? The paper, presented by Dr. Frank C. Hammond, Editor of the Pennsylvania Medical Journal, and the entire discussion will be published in our July Journal, so that you will have full opportunity to learn some of the problems and perplexities of society journalism and some of the suggestions made for improvement of our work. It is only necessary to say here that while we have by no means as yet attained the *ideal,* reasonable approach to the goal is not beyond the bounds of possibility; though proper effort in that direction will entail greater expenditure upon the Journal by the Society. We will at once inaugurate such changes as make for improvement and which will not add to cost of publication, and will hope that the Society may find it possible gradually to adopt all of the improving recommendations.

(2) County Societies. We regret very much that illness interfered with our customary visits to the county societies and that during the year we found it possible to visit only 8 counties and attend but 13 county society meetings; the extra meetings being in Atlantic, Bergen, Camden and Cape May Counties. Contact with all county societies was maintained, however, by correspondence; and the newly inaugurated annual conference of county society secretaries and reporters, so satisfactorily launched at Trenton, on January 26, served as a partial substitute for the former visits. It may be safely anticipated that this annual conference plan will prove of inestimable value in standardizing and harmonizing the work of our component county organizations and in facilitating the broader and all-inclusive work of the State Society.

President Mulford and Secretary Morrison have not only matched the excellent record made last year by President Conaway and Dr. Morrison, of attending meetings of every one of the 21 county societies, but they have done yoeman service in stimulating the county societies in their public welfare labors. The Executive Secretary had the privilege of reading a paper at the midwinter session of the Tristate Medical Conference, upon the subject of "County Medical Society Opportunities". The report of that conference and of the preceding one having been published in full in the January, February and April issues of our Journal, and as county society work was therein so thoroughly discussed, from every angle, it is unnecessary to say more upon that subject at this time.

(3) Woman's Auxiliary. Last year we reported that the auxiliary had been tentatively organized in association with each of the 21 county medical societies. This year, we regret to report that in 2 counties the auxiliaries have been forced to suspend operations because of opposition on the part of a few members of those county medical societies. In both counties we had obtained the endorsement of the county society before communicating with the women eligible to form such an organization. In both counties the question was thoroughly discussed in open meeting, and in both counties authorization to proceed with formation of an auxiliary was given by a large majority vote; in one of these instances it was apparently unanimous. In both counties the will of the majority has been thwarted by a few members whose opposition has rendered an organization of the women practically impossible. We recite these facts, not because the safety of the nation is threatened if an auxiliary be not instituted in every county, but because they show so clearly why organized medicine travels so slowly and so frequently fails to attain its objective. Until we learn to think and then to act in unison, to suppress personal feelings and play the game as an organized body should, we need not expect to function perfectly.

Those of you who have read the Journal are familiar with the work of the county auxiliaries during the past year. Only a few have as yet accomplished anything strikingly noteworthy, but that is because they are young, not yet fully organized, and because some of them have received but small encouragement from their respective county societies. At that, some of them have made as good a showing as some of the county societies, and there is not a county branch of this society that cannot profit by developing its auxiliary. Let us give a single example of what the auxiliary can do for us: We had not intended to call upon the women for any political assistance until they had become better organized and had enrolled in membership a larger percentage of eligible members, but, during the winter one of the cult bills pending in the State Senate reached a point where it gave us some concern. A public hearing was granted and it was necessary to call upon all the members of the Welfare Committee and all the presidents and secretaries of county societies for help. At the

same time, realizing that 5 counties were represented by senators who were known to favor the osteopathic bill or whose positions were doubtful, we asked the officers of those 5 county medical societies to call upon their respective auxiliaries for assistance. In every instance the women responded and in some instances they did very effective work. One Senator who was won over to our side, explained his action by saying that the osteopaths had brought heavy pressure to bear upon him in support of their bill and not a physician in his county had spoken to or written to him in opposition to that bill, but that he was suddenly deluged with letters from the Woman's Auxiliary. We have some reason to doubt the literal accuracy of that explanation but in effect it is probably true. At any rate, the results obtained in the 5 counties referred to are sufficient to prove that in the Woman's Auxiliary we have a potential force of great value, and that we should cultivate and direct that force.

(4) Educational Work. Most of the work in this department has for the past year been entrusted to the Field Secretary, Mrs. E. C. Taneyhill, and as she will present a detailed report of her own labors, we will omit further reference here to that feature of the state society program; except to compliment her upon the success attained and to express appreciation of the manner in which she has disposed of the work committed to her care and has developed new plans for the future. We heartily endorse what she has done and earnestly request your approval of the plans she will submit.

Radio broadcasting from Station WPG, Atlantic City, was resumed for the third consecutive year, and in the period between December 7, 1928, and April 26, 1929, our disease prevention program was put on every Friday evening at 8.30—a total of 21 radio talks. The topics presented and the authors of such articles were:

Prevention of Diphtheria Colds in the Head Prevent the Spread of Influenza Prevent Complications of Influenza Present Status of Influenza Epidemic The Clean Mouth Prevention of Cancer	All 7 of these by the Editor

The Cancer Problem.....Walt P. Conaway
Periodic Health Examinations....E. R. Mulford
Keeping Your Teeth Clean....Sylvanus F. Reese
Nasal Sinus Disease.....Charles S. McGivern
Weaning the Infant.....Walter B. Stewart
Prevention of Diabetes.....Frederick M. Allen
Prevention of Diphtheria....Harold S. Davidson
Prevention of Heart Disease....Philip Marvel, Jr.
Is Tuberculosis Curable?.....B. S. Pollak
Nervous Children.....Joseph H. Marcus
Fate of the Fat.....Harold B. Disbrow
Use and Abuse of Sun Baths.....William Martin
Prevention of Deformities.....Elmer P. Weigel

All of the above, save Dr. Reese, a prominent young dentist of Atlantic City, are associated with the state society.

It has been our custom to mimeograph these talks and distribute them in advance to the newspapers of the state with a release date coinciding with the time of radio delivery. Efforts have been made to ascertain what proportion of these 140 newspapers actually published this material in whole or in part, but in those efforts we have not met with much success. We have received positive evidences of publication in only 15 of the 140 to which copy was regularly sent. In this small group may be noted, however, such important papers as the Newark Evening News, Jersey Journal, Hudson Observer, Paterson Morning Call, Camden Courier and Atlantic City Press. It has not been feasible to keep an accurate accounting of the cost of distributing this material but we are able to make a reasonably accurate estimate of the cost of office supplies and postage going into this work and find that $239 has been charged up to these items. In other words, without taking into account the immense amount of labor put upon the office, the effort to disseminate these health talks through the press has cost approximately $240 to secure publication in 15 newspapers. Although there is no means of ascertaining how much benefit either the society or the public has derived from this procedure, we are inclined to doubt the advisability of its continuance in view of the fact that we have so many other demands upon the funds of the society.

Early in January announcement was made that E. R. Squibb and Company had arranged for a fifteen minute health program to be broadcast from Station WJZ, every Friday at 7.15 p. m. You are also aware of the fact that the American Medical Association maintains a daily broadcasting from Chicago and that in several states the boards of health put on occasional series of health talks. It may be considered whether our State Society might not lay off for a time and devote its energies to the solution of other problems. We are willing to continue the work if it seems desirable and have informed the Atlantic City Station that we will ask leave to announce a new program in October, but we would suggest that for the next year some of our county societies take up the plan and broadcast on their own account. The Atlantic County Society did carry a program for one year and will doubtless do so again if requested. At the same time, it may be possible for Essex, Hudson, Passaic, Monmouth, possibly other counties, to make use of facilities in their respective territories; and it may be that their local influence will produce better results than can be expected from the efforts of the State Society.

We, therefore, recommend, that whether or not you order continuance of the state society's broadcasting program, you request all county societies to launch educational programs of their own wherever local radio facilities can be secured. We ask you, further, to determine, in the event that the state society broadcasting is continued, whether we shall continue or discontinue the effort at newspaper dissemination.

It has been our privilege recently to make the acquaintance of Dr. Ireland, the new Director of Physical and Health Education, in the Department of Public Instruction at Trenton, and to find him very willing to coöperate in the public educational program of this Society. Dr. Ireland has some very interesting suggestions to offer regarding cooperation between the Department of Education and the State Medical Society, and we have asked him to address you in person so that his suggestions may lose nothing in value by having to be transmitted through a third party. You will hear from him later.

The matter of postgraduate education for members of the state society having been quiescent for some time, but ever in mind, we have made another attempt to devise a plan applicable to the needs of this organization and fitting the available facilities in New Jersey. As the plan re-

quires negotiations with one of our educational institutions by the President and Recording Secretary, we shall leave the report of this matter to be presented by Dr. Morrison.

(5) Public Relations. Reference to the Board of Education leads us to say that the public relations of the state medical society are in excellent condition. The State Board of Health, State Board of Medical Examiners, Board of Education, Board of State Aid and Charities, State Tuberculosis League, State Hospital Association, State Bar Association, all are working with us on the most pleasant terms. In so far as we are aware, there is no discord at any point, even the lay organizations engaged in public health work showing a willingness to confer with us upon any points where conflict might be anticipated. We would like again to advise county societies that have not yet named a public relations committee to do so at the earliest convenient moment, as that is a means of insurance against trouble.

(6) Tristate Conference. These conferences, 3 per annum, continue to be held and, we believe, continue to increase in importance. Full reports of each meeting have been published in your Journal and we direct your attention especially to the reports printed in the January and the April issues of this year because they deal with problems of vital import to every member of this society. The officers of county societies, particularly, will find much in those discussions to aid in promotion of their own organizational work. We have asked the Budget Committee to continue its appropriation to meet New Jersey's share of the cost of these conferences.

(7) Antidiphtheria Campaign. Although somewhat slow in getting under way and handicapped by the lack of funds needed for publicity, this campaign for the obliteration of diphtheria is progressing satisfactorily. Mr. Osborne, Health Officer of East Orange, has made an admirable leader and has managed, despite many discouragements, to get local committees at work in every county. Ultimate success of the movement seems assured but we trust that every member will render such assistance as may be requested by the local committees toward carrying this campaign to a rapid as well as a successful conclusion.

(8) State Legislation. During the session of the General Assembly just closed, we were beset by the usual number of medical cult bills designed to break down the educational barriers of the existing medical practice law, and some of these new bills were even more vicious than those presented in former years. The opening gun was fired with a bill in which the osteopaths, chiropractors and naturopaths had apparently joined forces to demand a separate board of examiners to cover these several groups of so-called healers. A split among themselves soon led to separate bills being introduced by each of the above named organizations, and in these bills they exhibited their real purposes in seeking special boards of examiners; all were seeking the full rights and privileges of the licensed doctor of medicine, though disguising their aims in varied ways, and asked for license without having to take the same examination and without measuring up to the same preliminary educational standards. "Special privilege" was their watchword but it failed to carry them through. Fortunately, we were able once again to block their game.

The chiropractors and osteopaths brought strong pressure to bear upon the committees to which their respective bills had been committed in the House and Senate, and in response to our request, a public hearing upon S. 44 was granted. Acting upon authority given by the Chairman of the Welfare Committee before he started abroad, we issued a call to members of that committee and to the officers of all county societies, requesting that they make a point of seeing their county representatives regarding that bill and that they attend the hearing. We desire to take this opportunity of thanking those who responded and of expressing gratitude for the very hearty responses that were given. This was the first time in 3 years that the members of the profession had been called *en masse* to Trenton and the large number of physicians attending that hearing on March 18 was most gratifying.

While our legislative efforts were directed mainly against the cult bills already referred to, there was one medical bill before the Assembly which we opposed because of the form in which it was presented but which deserves your thoughtful consideration because it is certain to appear again and because it was doubtless meant to deal with a problem that must be met squarely by the profession some day. A. 290 was entitled "An Act to Regulate Practice of Surgery" and, briefly stated, its provisions were that no one should practice general or special surgery without first complying with all the requirements of the Medical Practice Act and then, in addition, spending from 2 to 4 years in special preparation for practice of surgery or any one of the surgical specialties, and giving proof before a special board of examiners that he possessed the requisite skill to enter upon such surgical practice. We had to admit that the bill was based upon a principle fundamentally sound but argued that in the form presented it was a highly idealized proposition for which neither the profession nor the public is prepared at the present time. If enacted into law, it would have drawn a very sharp distinction between the practitioners of clinical medicine, on the one hand, and the surgeon, gynecologist, urologist, rhinologist, etc., on the other. The "family doctor", so-called, would have been prohibited from performing any major operation and many so-called minor surgical procedures.

The origin of this bill was obscure. It was reputed to have come from a member of this society but whether or not that be true is a matter of no vital importance; save for the fact that any member of this organization advocating legislation of that sort should have first submitted his proposition to this body, to the Welfare Committee, or at least to his own county medical society for consideration and endorsement. That surgery and specialism, with emoluments larger than are obtained from medical practice, have became attractive fields for the general practitioner, and that members of the medical profession inadequately trained for surgical practice often stray beyond their proper bounds, is patent to every observer. There is no doubt whatsoever that much harm is being done by incompetent, inexperienced persons attempting to perform major surgical operations. A tonsillectomy performed by a skillful operator, well-trained in his specialty, looks easy; but the same operation, attempted by a tyro, may result in disaster. The same may be said of many other surgical operations commonly performed. The public is becoming restive as a result of the number of deaths and otherwise bad results accruing from operations that should, under proper conditions, be practically without danger.

Thinking members of the profession have been discussing this question *sub rosa* for some time. It is our opinion that the time has arrived for some leadership in this matter and we respectfully suggest that a special committee be formed to study the contents and purposes of the Assembly Bill referred to and to consider the advisability of preparing regulations or legislation to correct the evil that unquestionably exists and which has grown out of the fact that under existing law any one who has acquired a license to practice medicine can become by his own pronouncement, *ipso facto*, a general surgeon or any kind of a specialist he may choose.

In this connection we beg to direct your attention to an editorial in the April Journal wherein we recommended that a "fact-finding investigation" be conducted by this state society to study the question of unprofessional conduct; to find out whether fee-splitting, exhorbitant charges, ambulance chasing, and similar irregularities exist in this vicinity. We expressed doubt about fee-splitting to anything like the degree one might infer from the amount of talk heard about it from various sources. Since that editorial was written, however, we had the privilege of sitting in at a meeting of the Credentials Committee of the American College of Surgeons and we were shocked by the number of times the charge of fee-splitting, either openly or by innuendo, was made against candidates for admission to the college; candidates who are now members of this society. The new Constitution and By-Laws to be acted upon at this meeting contain provision for having the judicial council act as a Grievance Committee similar to that provided in the new Medical Practice Act of New York State. We hope you will invite that Council, or will appoint a special commission, to investigate these rumors of unprofessional conduct, with a view to exploding false rumors and punishing those who may be found guilty of violating the code of ethics.

Another matter discussed at some length in our address to the Tristate Conference (see pages 349-350, April Journal) and referred to editorially in the May Journal is that of county society action with a view to abating the nuisance of newspaper advertising of nostrums and quacks. The disgraceful attempts to exploit the fears of the laity, made during the influenza epidemic of the past winter, call for some denouncement by the medical profession. We took advantage of an opportunity, in one of our radio talks, to attack the opprobrious methods being then employed by the manufacturers of aspirin, vapex, and other alleged preventives of influenza, and had some correspondence with newspapers of national standing—like the New York Times and the Newark Evening News, regarding the appearance of such ads in their columns. The Editor and the Advertising Manager of the Times treated us very decently and agreed to confer with a special committee from the New York State Medical Society regarding medical advertisements before accepting them for publication; so that problem has been turned over to our confréres in New York for further action. The News did not treat us so courteously, but we are not without hope that the present policy of that paper can be modified.

Now, every county in the state has one or more locally produced newspapers, and practically every one of such papers carries medical advertisements that its editor would be ashamed to mention in his news or editorial pages. It is practically useless for an official of the state society to attempt to deal with the county papers; all of their associations are local in character. It may not be possible, in the light of present American business standards, to abolish dishonest advertising from any single newspaper, or even to banish any of such advertisements from a large number of our papers, but if we can succeed in limiting the number of false, deceptive, misleading advertisements or can drive out even a few of those most detrimental to public health, we shall have accomplished a worth while task. So we ask the state society to urge the county societies to inaugurate active campaigns in their respective districts, against the public menace. The county society has, or should have, a great deal of local influence. Use of that influence in behalf of public health is a worthy project, and whether completely successful or not, the effort will of itself serve to enhance our standing in any community.

(9) National Legislation. Under this heading, there are 2 important matters to be brought to your attention. The Sheppard-Towner law expires by limitation on June 30, 1929. Efforts were made at the last session of Congress to enact a similar but even more far-reaching law in the so-called Newton Act. Those efforts failed. The special session of Congress, recently called by President Hoover, was supposed to be for the purpose of dealing only with farm relief and modifications of the tariff law, but scarcely had the Senate convened when a bill was introduced providing for extension of the Sheppard-Towner law. The American Medical Association is still fighting this proposition vigorously and asks for your continued support. We mention the matter now only because we know that some of our members—probably because they have not given the question serious thought, or have been influenced by the sentimental appeal of advocates of the law—are inclined to favor this legislation and we want to know if it is your will that we shall continue to aid the National Association in its fight against extension or reënactment of the Sheppard-Towner law.

The second matter relates to a bill, also introduced at this special session of Congress, to increase the penalties of the Harrison Narcotic Law. In our personal opinion that law has accomplished little or nothing in the line of its supposed purpose, and it has been a first-class nuisance to all honest practitioners of medicine. No sound reason has as yet been vouchsafed for increasing the penalties for infraction of the law, but the proposed changes will certainly add to the burdens of the physician. We think the pending amendments should be opposed. The American Medical Association will probably take action upon this question at its Portland meeting, in July. If you hesitate to anticipate the action of that body, perhaps it would be well to authorize us to act in accordance with such decision as may be arrived at by the A. M. A., or submit the question to the Welfare Committee for special study and with authority to act. Your attention should also be called to the pending Tariff Act which proposes a heavy increase in the tariff upon surgical instruments. We have filed a strong protest.

(10) Office Observations. As may readily be inferred from what has been said concerning growth of the Journal and the number of industries engaging our attention, the work of this office has increased tremendously during the past 5 years. The need for a home, or at least for adequate office space, is becoming increasingly insistent. The work of the society is hampered by

the present lack of facilities, many documents that should be preserved have to be destroyed because there is no place for storage, and even manuscripts and Journal proof cannot be held for a reasonably proper length of time. We have asked the Trustees to give serious thought to this question.

We cannot close this report without again recording our appreciation of the excellent service rendered by the office secretary, Miss Margaret Mahoney. Whether performing routine office work, substituting for lectures on the radio, or filling any of the intermediate emergency demands, her name is "efficiency".

Very respectfully submitted,

Henry O. Reik,

Editor and Executive Secretary.

Summary of Questions Asked

(1) Are you satisfied with progress of the Journal?

(2) What changes do you desire?

(3) Shall we endeavor to make it an *ideal* state society journal, as described at the conference of officers of New York, Pennsylvania and New Jersey medical societies, even if cost be increased thereby?

(4) Have you any suggestions to make regarding the Woman's Auxiliary?

(5) Any suggestions regarding work of Field Secretary?

(6) Shall we ask county medical societies to start broadcasting programs of their own?

(7) Shall we continue state society radio talks?

(8) Shall we continue or arrest newspaper dissemination of radio material?

(9) Will you endorse our recommendation of establishing Public Relations Committee (under whatever name) for each county society, and urge such bodies to clean up newspaper advertising in their localities?

(10) Is it advisable to have a special committee study Assembly Bill 290?

(11) Is it desirable to have a "fact finding" investigation of alleged unprofessional conduct?

(12) What shall be our attitude toward national legislation described: Sheppard-Towner law; Narcotic law; higher tariff on surgical instruments?

Dr. W. G. Schauffler: I move that the Executive Secretary's report be received and referred to the Committee on New Business for further report on its recommendations.

The motion was seconded and carried.

Dr. Schauffler: I would like further to move the thanks of the House of Delegates to our Executive Secretary for his very excellent report.

The motion was seconded and carried by a rising vote.

President Mulford: We shall now have the report of the Field Secretary, Mrs. E. C. Taneyhill.

Report of the Field Secretary

Mr. President and Members of
the House of Delegates:

In pursuance of the public educational program of the Medical Society of New Jersey, your Field Secretary has made, since her first report of a year ago, 69 talks before various civic, educational and religious organzations throughout the state. This figure represents an increase of 22 over the number of groups reached during the preceding year. In October of 1928, it was our privilege to appear before the Woman's Auxiliary to the Pennsylvania State Medical Society at its annual meeting in Allentown, to give a brief account of development of the auxiliary in New Jersey with special reference to the educational phase of the work in this state. We have also attended all but 2 of the regular monthly meetings of the Executive Council of the Committee for Prevention of Diphtheria, and we are now acting as Recording Secretary for that committee. The minutes of these meetings are mimeographed at Dr. Reik's office, and mailed from there to all members of the committee.

We have, at request of the Council, undertaken to interview all of the county chairmen for the committee, with the double object of bringing the chairmen in closer touch with the committee and of acquainting the committee with the local needs and problems.

The most active phase, by far, of the educational work during the past winter has developed in coöperation with this committee, as authorized by the medical society. Not only have requests for talks come through the committee but, where we have had the choice of a subject, we have always given preference to diphtheria immunization. This topic has been presented to 28 audiences, reaching a total of 3455 individuals.

The most intensive campaign program was arranged by Dr. Ely, Chairman for Somerset County, where, during the third week of January, 15 audiences received what they frequently impressively call "the message". On most of these occasions the film loaned by the Metropolitan Life Insurance Company, called "New Ways for Old", was used in connection with the talk. A unique feature of the program in Somerset County, and one to be recommended to other county chairmen, lay in securing from the management of the Cort Theater in Somerville permission to insert a diphtheria trailer in one of their afternoon movie programs, followed by a five minute talk. In this way many individuals were reached who could not have been persuaded to attend a meeting held primarily for presentation of such a subject.

In Ocean County, the chairman, Dr. Bunnell, succeeded in enlisting the services of the Parent-Teacher Associations in Barnegat and Beach Haven for sponsoring a mass meeting in each place, held in the local theatre and attended in each instance by approximately 150 persons.

That the educational work of the Committee for Prevention of Diphtheria will see increased activity next fall is indicated by replies which have begun to come in from a questionnaire sent by the committee to 800 clubs and associations throughout the state, asking for information regarding the extent to which immunization has been carried out in the various localities and whether the services of a speaker would be acceptable. The object of the questionnaire was not so much to secure data, which were available from other sources, as to arouse the interest of the local organizations.

As your Field Secretary was requested to act in the capacity of liaison officer between the medical society and the auxiliaries, she sent, in the fall, to the president of each county auxiliary, a re-

quest that her name, together with that of the state auxiliary president, be placed on the mailing list for notification as to time and place of meetings. Five counties responded at that time and several more replies were received to a second appeal early in the spring. Inasmuch as a number of counties are still experimenting as to the best policy to pursue in regard to their meetings —whether to hold them at the same time and place as the county medical society or quite independently—we feel encouraged to believe that eventually we shall have a complete schedule and thus be enabled to cover the field more satisfactorily than has been possible this year.

Speaking generally, it has become quite patent that the efficiency of the auxiliaries develops in direct ratio to the attitude toward them of the county societies. Three counties may be classed as inactive—Cumberland, Monmouth and Morris. Five counties—Bergen, Hudson, Mercer, Middlesex and Salem—are holding regular meetings, attended in about the same ratio to their potential membership as are the county medical society meetings. Warren and Hunterdon are still young and apparently openminded. Sussex, one of the last to be organized, has made, through the effort of Mrs. R. R. White, Vice-President, a most creditable showing in support of the educational program. Burlington, Atlantic, Somerset, Camden, Gloucester, Essex and Union County auxiliaries are doing definitely constructive work in one or more of several fields: (1) self education through prescribed reading and instructive programs at their meetings; (2) public education, by promoting our health program; (3) hospital assistance, by making surgical dressings, and (4) last, but not least, the placing of Hygeia, either by securing subscriptions or by donating same, in the belief that, when the readers have become accustomed to receiving this magazine, they will insist on its being placed on the regular subscription list of clubs and reading rooms. Naturally, the activities of the separate auxiliaries are gradually determined by local conditions. It is probable that they will all be asked very soon to interest themselves in helping to establish some machinery by which immunization will be offered annually to preschool children in every community.

Burlington County has divided into 4 regional groups, meeting monthly, while the county auxiliary meetings are held quarterly. Both this auxiliary and that of Mercer County are making dressings for their county hospitals. Burlington has also contributed $10 toward the diphtheria campaign poster fund. Essex and Union have done notable work in placing Hygeia in the schools, stores, libraries, clubs and Y. M. C. A. and Y. W. C. A. reading rooms. Atlantic County made a gift to the Atlantic City Hospital of small chairs for convalescents in the children's ward. In Gloucester County a brief review of the contents of the Journal forms a part of their routine program at meetings. This feature greatly heartens the editor who is thus assured of a definite minimum of regular readers.

Five auxiliaries—Bergen, Burlington, Camden, Essex and Passaic—at the request of their county societies, have rendered appreciable aid in bringing pressure to bear on their representatives at Trenton in regard to the 3 bills introduced in the effort to acquire for osteopaths, naturopaths and chiropractors greater latitude in practice and in the use of the title of "doctor". That the letters written by the members of these auxiliaries, and their interviews with the legislators were by no means negligible was evidenced by the statement of one senator to the effect that, while the cults introducing the bills had been most active in their support, not one local physician had approached him to urge opposition to their passage. "But the women!", he exclaimed, "they have deluged us with letters and left us in no doubt as to where the medical profession stands in the matter."

The Executive Board of the state auxiliary has held 2 luncheon meetings at Trenton during the past year—one in January and one in April—to which were invited all members of the county auxiliaries, and where reports of auxiliary activities were presented by the county presidents. Eighty-three women gathered around the long table at the Country Club in April, and one heard on all sides the sentiment subsequently voiced by the state president, Mrs. George L. Orton, that in merely bringing together such a group, the auxiliary had already performed a definite service. "It is not surprising", said Mrs. Orton, "that we should already greet each other as old friends, because we share common problems and we live for a single purpose; after all, most of us are just good telephone girls." The belief was expressed that, while the auxiliary might be today only an incidental interest in the lives of most of its members, the time would surely come when it would quite logically claim and receive their first consideration.

In the counties where the auxiliaries have been encouraged and are prospering, their coöperation with the county chairmen for the antidiphtheria campaign has made it impossible to draw an exact line—as was done last year—between the efforts of the county medical societies and the auxiliaries in behalf of the educational program of the state society. It is certainly no exaggeration to state, however, that the auxiliaries have been responsible for 90% of the invitations for your educational representative to address lay audiences. The subject of periodic health examination, under the caption, "Death Control", has been presented 15 times, and the illustrated talk on "The Life and Work of Pasteur", 13 times. For this lecture Dr. Reik secured in Paris last summer about 40 pictures from which slides have been made. A small lantern was provided by the society, and even in rural districts audiences have exhibited a sustained interest in this subject. A janitor in a country school, who had been an attentive auditor, was moved to observe, "That Pasteur sure was one busy man!" The plan adopted by the Atlantic County Auxiliary, of inviting the nurses at the hospital to attend these talks, is recommended.

We cannot leave the account of this phase of our work without referring to the warm reception accorded us on our return to the Glassboro State Normal School. The "Story of Toxin-Antitoxin" was told to 450 of the students, and at its close Dr. Savitz gave us a letter of recommendation to all similar educational institutions.

Although the record of the educational work for the year 1928-29 shows a definite increase over that of the preceding year, we have nevertheless been forced to the reluctant conclusion that the large majority of county societies and auxiliaries are not "go-getters", and that we must ourselves assume a more aggressive policy in order even to test the possibilities of this program. In accordance with this decision, we accepted the offer of the Chairman of the Welfare Committee of the State Federation of Women's Clubs to

make a place on her table at the convention at Atlantic City in May for cards announcing the topics we are offering to program committees.

In Camden County the energetic president of the auxiliary, Mrs. A. J. Casselman, has inspired her committee to circularize all the Parent Teacher Associations in the county with reference to securing a place on their programs for next year. Six requests for dates have already been received. It is planned to complete, before fall, circularization of the Parent Teacher Associations of every county in the state, either personally or through the auxiliaries.

Most promising and comprehensive of all developments, however, is the alliance we have made with Dr. Allen G. Ireland, the newly appointed Director of Physical and Health Education in the Department of Public Instruction at Trenton. Dr. Ireland believes that the subjects presented by the medical society would be of educational value to high school students, and that they would also find appreciative audiences in the County School Principals' Associations and Teachers' Institutes. He has accordingly, in the most helpful spirit, made out a schedule, giving each county definite dates covering the period from November 4 to May 23. He has further notified each county superintendent of his endorsement and of the date allotted to that county, asking the superintendents to forward the information to the local Parent Teacher Associations and any other organizations that might be interested. He has also sent our cards to all the normal schools in the state. As Dr. Ireland says, if this inoculation "takes", it will produce a full-time job for any one individual.

With a view to systematizing our work so that we shall spend less time, effort and money in doubling back in our tracks, the schedule drawn up by Dr. Ireland will be sent to the president of each county medical society and auxiliary, with the request that he or she remind the members that the noon hour of those days and the late afternoons and evenings will be available for service clubs and other groups. There are also intervals of one or two days in the schedule that will permit accepting what might be termed engagements at large.

As the population in general is mentally unemployed during the summer months, these will be spent by your secretary in reading, classifying and assimilating a lot of material that has come to hand in pamphlets, books and newspaper clippings, so that "the message" may appear next year clothed in the very latest garb.

It is a poor educator who disregards the many opportunities for constantly reëducating himself, and of course your secretary is in a position to gather many astonishing items that are regarded as solemn facts by those who offer them at the testimonial meetings which have a tendency to break out after the attention of an audience has been riveted upon a subject which experience has crystalized into some form—varying from the pathetic to the grotesque—in the minds of each and everyone. You have all heard of the "leaky heart" resulting from vaccination which justifies a taboo on all serum treatment, indiscriminately resisted as "pus from a sick horse". It was a practicing physician, however, who ascribed a case of St. Vitus dance in a child patient to the fact that his system had recently been subjected to the indignity of inoculation with toxin-antitoxin. One hears occasionally of a medical supervisor of a school district who is indifferent or opposed to this preventive measure. Dr. Ireland will probably have something to say relative to the matter of filling these posts with representative members of the profession.

The young son of a druggist offered the only notable contribution to therapeutics. This boy informed us that his father had found Fels Naphtha soap very beneficial in his own case of pyorrhea. This complaint may be slightly out of the line of most medical men but the information is passed along for whatever use your further research may justify.

In concluding this report we would draw your attention to the fact that the actual number of engagements filled in the educational work for the past year, exclusive of committee meetings and interviews for promoting the work, shows an increase over the previous year of 47%. Seven invitations we were unable to accept—two because floods and storms made the places inaccessible, two because of the influenza epidemic, and three because of conflicting dates. Including these openings, the increase in the requests for our health talks amounts to 60% over the previous year. You are also asked to dwell on the fact, with whatever emotion is thereby produced, that, of the 76 applications we have received, only 3 came directly through a county medical society member. Only 2 of the county chairmen have asked our assistance so far in the antidiphtheria campaign; the balance of our accomplishment stands to the credit of 7 county auxiliaries—atlantic, Burlington, Camden, Gloucester, Ocean, Somerset and Sussex.

It is never easy to measure the effectiveness of any educational program; a certain number of talks are given to audiences embracing a certain number of people, but what percentage of the listeners understand and are capable of applying the lessons, and how many go out to spread the gospel to those who did not attend the meeting, must remain unknown quantities. We are not, however, entirely without means of measuring the degree of success resulting from our efforts. Specific engagements to return to the same club or to other clubs and organizations in which one's hearers hold membership, and the finding on return visits that the previous talk has borne fruit, certainly encourage us to believe that the work is proving beneficial. It has been gratifying to have had many such experiences during the past 2 years, and we feel quite justified in reporting that your general educational program is being welcomed by the public, that the results are more than promising, and that there is a growing demand for further enlightening and authentic information in the field of preventive medicine.

Respectfully submitted,

Ethel C. Taneyhill,
Field Secretary.

Supplement to the Report of the Field Secretary of the Medical Society of New Jersey

Showing Engagements Credited to Counties During the Year 1928-1929

Atlantic

Atlantic City, County Auxiliary and Hospital Nurses	55
Atlantic City, Denver Tuberculosis Sanatorium Auxiliary	30
Atlantic City, Denver Tuberculosis Sanatorium Auxiliary	18
Atlantic City, United Order of True Sisters	43

Atlantic City, Y. W. C. A. (Business & Professional Women)	38	
Atlantic City, Y. W. C. A. (Business & Professional Women)	28	
Atlantic City, Business and Professional Women's League	60	
Farmington Parent-Teacher Association	24	
Egg Harbor (cancelled)		
		296

Bergen

Auxiliary to County Medical Society	30	
		30

Burlington

Auxiliary to County Medical Society	25	
Burlington Baptist Church (open meeting)	100	
Mt. Holly Women's League	30	
Auxiliary Section (Mrs. Mulford)	8	
Riverside School (antidiphtheria campaign)	500	
Delanco Parent-Teacher Association (campaign)	150	
Riverside-Delanco-Bridgeboro Kiwanis Club (campaign)	31	
Auxiliary to County Medical Society	18	
Burlington Kiwanis Club	53	
Burlington Parent-Teacher Association (campaign)	15	
		930

Camden

Camden Woman's Club	75	
Collingswood Parent-Teacher Association	30	
Fairview Parent-Teacher Association	80	
Camden Kiwanis Club (antidiphtheria campaign)	44	
Auxiliary to County Medical Society	12	
Woodlynne Parent-Teacher Association	150	
Westmont Loving Service Club	24	
Watsontown Parent-Teacher Association (conflieting dates)		
		415

Cape May

Social Workers of Southern Jersey	33	
		33

Cumberland

	0	0

Essex

Temple B'Nai Abraham Auxiliary	75	
Auxiliary to County Medical Society	28	
		103

Gloucester

Paulsboro-Gibbstown-Thorofare Parent-Teacher Association	150	
Woodbury High School	900	
Glassboro State Normal School	450	
Clayton Parent-Teacher Association	48	
		1548

Hudson

Home Church Society (cancelled)		
Auxiliary to County Medical Society	30	
		30

Hunterdon

Auxiliary to County Medical Society	6	
Auxiliary to County Medical Society	6	
		12

Mercer

	0	0

Middlesex

	0	0

Monmouth

Auxiliary to County Medical Society	4	
Red Bank Rotary Club	57	
		61

Morris

	0	0

Ocean

Barnegat P.-T. A. (open meeting for antidiphtheria campaign)	100	
Beach Haven P.-T. A. (open meeting for antidiphtheria campaign)	150	
P.-T. A. and Woman's Club, Point Pleasant (campaign)	33	
Auxiliary to County Medical Society	8	
Tuckerton P.-T. A. (cancelled)		
		291

Passaic

Auxiliary to County Medical Society	34	
		34

Salem

	0	0

Somerset

Peapack Women's Club	20	
Auxiliary to County Medical Society	18	
Antidiphtheria Campaign—		
Peapack Women's Club	21	
Somerville, Home School Association	30	
Blauenburg P.-T. A.	20	
Somerville, Cort Theatre	200	
Somerville, High School Auditorium	20	
Bound Brook, School Principals' Association	15	
Bound Brook Rotary Club	38	
North Plainfield Somerset School	12	
Millstone School	50	
Raritan School	50	
Bernardsville Italian Parochial School	50	
Bernardsville Rotary Club	30	
Bernardsville High School	50	
Middlebush School	150	
Farmers' Grange (cancelled)		
Neshanic Chapel (cancelled)		
Hopewell Roundabout Club	28	
		802

Sussex

Newton Fortnightly Club for Women	60	
Franklin Hospital Auxiliary	30	
Franklin Phyllis Club	58	
Franklin Grammar School and High School	950	
Hamburg School	130	
Ogdensurg School	250	
Auxiliary to County Medical Society	6	
Newton Schools (2 cancellel)		
		1484

Union

	0	0

Warren

Auxiliary to County Medical Society	6	
		6

Other Sources

Auxiliary to Medical Society of Pennsylvania	100	
Nutley P.-T. A. (for Mr. Osborne)	100	
		200
		6275

Requests	76
Engagements filled	69
Total number of people addressed	6275

President Mulford: Gentlemen, you have heard the report of our Field Secretary, what is your pleasure?

Secretary Morrison: I would like to say a word about this report. We wondered a while ago what was going to be the function of the Woman's Auxiliary when it was established. We find from this report that the Woman's Auxiliary acts nine times to one for a county society in requesting the services of our Field Secretary. I have had the pleasure of seeing Mrs. Taneyhill's pictures on Pasteur's life and I assure you it would be helpful for every county society member to see these pictures. There is no reason at all why each county society should not extend to Mrs. Taneyhill an invitation to deliver her lecture and show these pictures. I have talked the matter over with her several times and the chief discouragement she has in her work in New Jersey is lack of coöperation from the officers of the county societies.

It is costing the state society a good deal of money and we cannot measure the full effect of her work upon the public, but we know it is growing with leaps and bounds. She is a full-time officer. She is at your disposal all of the time and I cannot urge the county societies too heartily to wake up and extend her coöperation in her work.

President Mulford: Is there further discussion?

Member: I move the very excellent report be accepted and that Mrs. Taneyhill be encouraged to pursue her work and be complimented upon the splendid work done.

The motion was seconded and carried.

President Mulford: We would now like to call on Dr. Allen G. Ireland, Director of Physical Health and Education in the Department of Public Instruction.

Dr. Allen G. Ireland: Mr. President and Members: First of all, I want to declare my appreciation of this opportunity of meeting with you. I have been mentioned so often here this morning that I feel adequately introduced. Let me say I represent the Department of Public Instruction and in case any of you have any doubts, as a physician did recently, I want to tell you in confidence that my degree is an M.D. and not a Ph.D. in education. Since coming to New Jersey that misake has been made too frequently for my comfort.

I can't, of course, in the time allotted to me, go into details of our program or tell all we hope to do; that will come in time. But it is my privilege to present to you the idea of coöperation.

First of all, let me declare as a matter of public record, that the Department of Public Instruction, the Commissioner of Education or myself, has no intention of promoting state medicine or governmental paternalism, as was mentioned here this morning. Our aim is solely one of education in healthful living—education, the training of boys and girls; the creating of those habits and attitudes which make them look to us as their friends, and to your sons and daughters, who will be physicians when these boys and girls in the schools go out into life, as their friends. We have no idea of establishing treatment clinics nor of establishing any clinics in the public school at public expense, nor instituting measures to take care of the corrective health of the child. I want that to be understood at the beginning.

I stand in a unique position. I can talk with you and I understand your language. For a number of years I have been associated with educators and I understand their language. So it is my privilege to be in the center ground as a go-between to bring about this coöperation and coördination which is so essential to effective health education in New Jersey.

What I asked Dr. Reik about was this: I wanted the privilege of turning to the Medical Society of New Jersey, or to any one of its committees or officers, for advice and consultation. I want to establish a school health program which will be in accord with your idea and ideals and principles, and none other. I can't go ahead alone, but I do want to turn to you to help me, to tell me what is right, what is in accord with what you think ought to be done. That is one reason why I am here today, and perhaps the chief reason.

While I have this opportunity of speaking to this House of Delegates, I want to just picture for you the inception of this school health program, its reason for being, the foundation underlying the whole thing. The technic you know, so just in a few words I want to point out to you that there has been a tremendous change in public education since you went to school and, in a word, that change is typified by a shifting of emphasis from the mass of knowledge and effectual information which we attempted to pump into the child, regarding him as a vacuum, as a system of pigeonholes in which to store this information, to the subject, that is the child, the thing that is doing the learning. Where we used to look upon a boy or girl as a small man or small woman, and treated him as such, we now regard him as a psychophysical organism, a biologic process, a growing, developing animal, and instead of pumping information into him we are trying to draw out of him the

capacities and abilities which nature placed in him. It is a drawing-out process, a developed mental process of the intellect, of the abilities, which are there. Viewed from that angle, education is something more than imparting subject matter. It is the training and direction of this little animal, this biologic process, in the right direction, so it will grow as a straight tree, so that it will go out into life trained in citizenship, in character, and trained to meet the difficulties and obstacles of life.

We are thinking, then, in terms of physical fitness, in terms of social health, in terms of mental and moral health; we are thinking of the solution of the crime problem, the juvenile crime problem; we are thinking in terms of social maladjustments, the solution of social maladjustment; in terms of health habits, of healthful attitudes, mental, social and moral attitudes. It is entirely a matter of physical and mental fitness. That is where the medical and dental professions stand on the same ground with the educator. We have need for special talent. We have need for your advice. We can no longer get along with the class-room teacher but we turn to you to contribute your bit to this tremendous public institution, the greatest industry in this country, to turn out better citizens and better parents and better workers, better producers who shall be physically and mentally fit. As I stated, we have no interest in a corrective program but we do have an interest in training these boys and girls of ours in how to live, physically, mentally and socially.

I cannot stop without referring to Mrs. Taneyhill's mention of treating pyorrhea with soap, and Dr. Reik's splendid illustration of the false claim of prevention of flu by the use of Vapex. I could tell you of hundreds of incidents that I, who have been engaged in child health work for a number of years, have run across in the public schools. I want to tell you of just one. A very brief survey made of school children in another state by myself revealed that there were 25 children whose glasses were purchased at the Five and Ten. That thing is going on in our public schools in alarming proportion; the purchase of drug-store treatment, drug-store prescriptions, patent medicines of all kinds. You see the opportunity we have.

Over 275,000 school children in New Jersey alone are going to be adults in a few years. We want them to go out into life regarding you as their friends, as physicians to whom they can turn in time of need instead of the deceptive advertisements in the newspaper. We want them to go to you when they need advice as to health or alleviation of their suffering. I maintain that the only way to reach the public of the future is through these little children now in the public schools. You can have your radio talks and your press and your books and all sorts of things for the pre-adult education but it just doesn't get over effectively. We have got to train these boys and girls in how to live mentally and physically and to go to you folks when in need. It is an educational matter from beginning to end.

Coming to New Jersey to establish the school health program, naturally before I do anything I want to turn to this organization for your ideas and ideals and principles. I want to go to your Welfare Committee, or any other committee you may delegate, for consultation and advice. I hope you will give me a page or two in your Journal for school health notes. I hope you will see an opportunity, by providing at these conventions a section for school physicians, an opportunity for me to come representing the school men and the health program of the state on a common meeting ground with the medical association. It is only by that coöperation and coordination that we are going to do this job well.

Just one other thought, to clear up a misunderstanding. It has come to my attention through friends, and through members of this association, too, that I have been accused of over-reaching my bounds. I want to assure you again that my bounds are entirely confined to the public schools. The pre-school child is being adequately cared for and is being well taken care of by other departments and bureaus and organizations. Wherever we can coöperate and coördinate with other departments, we want to do it but I am concerned only with the public school child.

President Mulford: Is there any discussion on Dr. Ireland's remarks.

Secretary Morrison: Mr. President, I want to congratulate the Medical Society of New Jersey on the reception of this report. This is a distinct outgrowth of the educational program which your officers have been putting over for the last 3 years and I think the society should be congratulated upon the assurance by the Department of Education of the close coöperation of this body with the medical profession in the future.

President Mulford: On behalf of the State Society, Dr. Ireland, I want to extend our thanks to you for bringing this splendid message to us.

We would like to hear from Mr. Osborne,

the Health Officer of East Orange and Chairman of the State Antidiphtheria Campaign.

Mr. Osborne: Mr. Chairman and Members: We who are not educators are not as well equipped to hold within a definite time limit as Dr. Ireland, so I have committed the few remarks which I have to make to paper.

You will pardon me, I hope, for citing in this account of our campaign, local East Orange figures, but these are the ones with which I am most familiar and will bring out clearly the points which I wish to make. I shall not take time to more than mention my appreciation of the opportunity for bringing this State Diphtheria Campaign personally to your attention. After all it is essentially your baby, I being merely the foster-father set up by you and the other state agencies interested to whack away at a problem which is medically solved but still remains to become a practical success. What the campaign has accomplished during the past two years you already know; if not, you may learn by referring to the February and June numbers of the State Journal. It may be said that approximately two-thirds of the counties have shown definite activity and, I believe, that so far as the immunizing of school children is concerned we may look forward to the time in the not distant future when the whole state will be adequately covered. Anything which you or I may do cannot prevent this. The public is prepared to accept this protection for school children and Boards of Education, as you have been told by Dr. Ireland, are prepared to provide it.

The particular problem which now faces us is that of the preschool child. In East Orange we have not had a death from diphtheria in a school child since 1926, and then but one. Last year two preschool children succumbed and this year two others together with an adult woman of 57 years. We are now having about 40 cases a year reported; while the average for 5 years prior to the introduction of active immunization was 90. So far as our city is concerned, with 80% of the school population protected, diphtheria is coming to be of minor significance among pupils. The preschool child and the susceptible adult remain now as the major portion of the problem and it is the youngsters that we are particularly concerned about and for whom we have attempted to provide methods of protection.

This aspect is far less encouraging than that of the school child. To successfully meet it will call for the united efforts of all interested agencies. In fact, we are confronted here, as in all public health education, with a combination of superstition, misinformation and indifference—that triumvirate of obstruction which more than anything else combines to prevent sound public health and to foster the growth of extraneous cults.

Dr. Thomas A. Storey, Professor of Hygiene and Physical Education of the College of the City of N. Y., accounts for this by the fact that most people, even college students, are not openminded with respect to instruction concerning public and personal health. Their minds are already filled with prejudices, family traditions and half-truths so that in the process of education for public health we are faced with many of the obstacles met with in religion and politics. It is relatively easy to teach abstract mathematics, problems in engineering or history or the classics; but economics and social science and matters of public health do not sink in and find acceptance so readily.

It is for this reason that I believe Health Departments and the organized medical profession must work more closely together. Each can so readily supplement the other. The one has the medical knowledge; the other access to the public mind through various media of publicity. In some sections this is being done. In our own city for instance by an intensive educational campaign through the public press, motion picture houses, churches, stores and other avenues, the danger of this disease to the preschool child is brought to the attention of the public twice a year —in the spring and fall. At the same time doctors are notified that fresh immunizing materials are at hand for their use for the asking and parents are urged to take their children to them for the treatment. As a result, in 1927 and 1928 about as many preschool children were immunized in private practice as the total done by the health department and physicians before then.

This preschool group, of which it is estimated there are some 330,000 in the state, not only presents a public health problem to physicians but should also provide a satisfactory return for the time and effort expended. Let us look at the economic side of the subject for a moment. Director Bowen tells us that there were about 6000 cases of diphtheria reported in the state in 1928. I am informed that there are approximately 3500 physicians in the state or something less than two cases of diphtheria per doctor. I don't know what the average return to physicians would be for treating two cases of diphtheria, nor do I care; but I submit that whatever it may be it will be several times lower than the minimum which he could expect were he to conscientiously set out to immunize the 100 preschool children which is the average to every physician in the state, if the above figures are correct. Even were he to fix a price, as many doctors do, of $5.00 for the three immunizing doses it would amount to something like $500 per year and for this he would be rendering a real public health service to his clients from whom he would remove the possibility of a fatality from diphtheria. By treating them in groups at fixed times, the event could be popularized and the cost to a physician materially reduced. I say again that Health Departments can go so far towards bringing these unprotected children into the hands of private physicians and that they should work together to this end. There will be some, who either honestly cannot afford this protection or who will not be willing to pay for this safeguard against a potential danger. Even with these children handled through clinics the return to the profession would still be far greater from those who would go to private practice than that which could reasonably be expected from the actual treatment of the disease.

In closing let me say that the services rendered the State Campaign by Drs. Morrison and Reik and Mrs. Taneyhill on behalf of the State Society have been indispensable. It is hoped that they may be continued and increased. The liaison established between the State Health Department and this campaign by Mrs. Taneyhill is an instance of the value of such coöperation as I have attempted to indicate. I hope to live long enough to see the petty differences between health departments and physicians replaced by a conscious effort for a real understanding and a will to work

more closely together. Health Officers, for the most part, invite such assistance knowing that it would work to the mutual advantage of both parties and believing that it is probably the most likely method of warding off some kind of compulsory state medicine. Under such a coöperative plan public needs would be adequately served and health goals such as diphtheria control, would be half won before the fight began.

President Mulford: We take this opportunity, Mr. Osborne, to thank you for bringing us this splendid message and to assure you of our continued hearty support in all your efforts until diphtheria shall be a scourge no more.

We shall now have the report of the Board of Trustees.

Report of Board of Trustees

June 12, 1929.

To the House of Delegates:

Gentlemen:

At the closing session of the last Annual Meeting, according to custom, the Trustees neld a meeting for the election of officers and other business. The officers chosen were: Chairman, Dr. Norton L. Wilson; Secretary, James Hunter, Jr.

A resolution was adopted, providing for sending the Journal, without charge, to the widows of deceased members of the State Society.

A special committee was appointed to serve in an advisory capacity, or as liaison, to the Woman's Auxiliary of the Medical Society of New Jersey. The Chairman named: Drs. Conaway, Mecray, Donohoe, Emerson and Osmun.

A special meeting of the Trustees was held at Trenton on November 25, 1928.

The Treasurer reported having invested $2000 in a 5½% guaranteed mortgage certificate of the Investor's Title and Mortgage Guaranty Company of Paterson, and had transferred a Chicago and Alton Bond to the Permanent Fund. This action was approved.

Having received a report from the special committee on place of meeting for 1929, it was decided to meet again at Haddon Hall and Chalfonte Hotels, Atlantic City, June 12 to 15, 1929.

After discussing messages from the Special Sections, tried out by the Scientific Committee during the session of 1928, it was voted to continue these sections, with the understanding that sections must remain entirely under control of the Medical Society of New Jersey.

The question of advertising in the Program and exhibitions in the hall at the Annual Meeting being again discussed, it was again determined that advertisements and exhibits must conform to the rules of the American Medical Association.

A communication from the Executive Secretary regarding the work of the Society being considered, it was decided to appoint Mrs. E. C. Taneyhill to the position of Field Secretary at a salary of $4000 per annum; to relieve Dr. Reik of some of his duties and to appoint a special committee to consider readjustment of his work; the committee consisting of Drs. Schauffler, Green and Conaway, with power to act for the Trustees.

At the request of the officers of the State Society, provision was made for holding an annual conference of secretaries and reporters of county medical societies.

Complaint received from Dr. L. E. Stillwell, of Ocean County, that he had been refused membership in the county organization, was referred to the Judicial Council.

Respectfully submitted,

James Hunter, Jr.,
Secretary, Board of Trustees.

President Mulford: Gentlemen, you have heard the report of the Board of Trustees; what is your pleasure?

Member: I move it be accepted.

The motion was seconded and carried.

President Mulford: We shall now have the report of the Welfare Committee, Dr. Andrew F. McBride, Chairman.

Report of the Welfare Committee

Following our appointment by President Mulford as members of the Welfare Committee, we met on October 15, at Trenton, and organized. At this meeting it was agreed that the Medical Society of New Jersey would seek no legislation, but would endeavor to acquaint the public generally, and the members of the legislature particularly, regarding its position on public health questions, and that we were opposed to any legislation that permitted unqualified persons to engage in the healing art, or to extend or accord to any persons already possessing limited licenses any additional privileges through new legislation. Several meetings were held by the committee during the year and members contributed freely of their time and ability in an endeavor to acquaint the members of the county societies with what we were doing, likewise to secure their coöperation in having the members of the county societies advise the members of the legislature from their counties concerning our position in health matters, and that we were interested solely in protecting public health generally, by setting forth our reasons for opposing legislation that would permit unqualified persons being granted the right to engage in the healing art. That the Welfare Committee had need to be active and alert if we were to secure this protection, was evidenced by the great number of cult bills that were introduced in the legislature. Never before in the recollection of the Welfare Committee were so many vicious and harmful bills introduced in any single year, by persons desiring unfair privileges through legislation, the passage of which could have such harmful effects. Dr. Reik, our Executive Secretary, was kept busy during the entire session in an endeavor to inform every member of the legislature why these bills should not be reported out of committee and if reported out, requesting the right of a public hearing, so that the Welfare Committee and the members of the Medical Society of New Jersey be given a chance to augment by personal argument the reasons why these bills should not be passed. Such hearings were granted in the case of Senate Bill 44 and Assembly Bill 292. The following members of the Welfare Committee and of the State Society addressed the committees having these bills in charge: Drs. Mulford, Morrison, Reik, Kelley, Corbusier, Macalister, Lathrope and Liva. That the reasons stated by the speakers were effective is evidenced by the failure to pass Senate Bill 44 or to report any of the bills out of committee.

Before the legislature adjourned it was necessary for me to take a rest, so on March 14, I left on a sea voyage and was gone 2 months. I regretted very much having to do this, but the work of the committee in no way suffered. Every member of the committee together with the officers of the society carried on the work splendidly. I want at this time to thank Dr. Leo Haggerty, of our Welfare Committee from Mercer County, for the splendid manner in which he aided the committee by tireless efforts at Trenton after my departure, in keeping the members of the society constantly in touch with what was going on; this coupled with the work of Dr. Reik and the other members of the Welfare Committee, who addressed the committees of the legislature; together with the presidents and secretaries of the county societies, and their Welfare Committees; likewise the many members of the county societies who interviewed the members of the legislature in their respective home counties, and who also journeyed to Trenton when hearings were given.

That the majority of the members of the legislature are desirous of being informed on bills introduced during sessions of the legislature is my firm belief, and that they appreciate having the doctors visit them and explain why they are opposed to bills, also to answer questions that members of the legislature may desire to ask, also if the doctors are able to give them good valid reasons why such bills should be defeated, that the majority of the members of the legislature are willing to support us in our endeavor to protect the people of the state in health matters. That the Medical Society of New Jersey is absolutely unselfish and has but one object in view, namely, to prevent unqualified persons from having the right to engage in the healing art, admits of no contradiction. The health and the lives of our people are far too important to be left in the hands of persons who do not possess proper qualifications to care for them in time of need. It likewise follows, in cases where some such licenses have been granted in the past, that there is no justification for its being done again. Nor should those who have such licenses have any additional rights granted them. The aim of the society is to have all those engaged in the healing art possess proper qualifications. When this is accomplished the Medical Society of New Jersey will not care, nor will it concern itself by what title those engaged in the healing art desire themselves to be known. Nor will we be concerned with what form of practice they desire to treat their patients, just so long as they comply with the laws of our state as they affect those granted licenses to engage in the healing art.

In conclusion, may I again express my sincere appreciation to the members of the Welfare Committee who so ably assisted in this splendid work during the past year, and to all the members of the medical society, who aided the members of the Welfare Committee, and to Dr. Reik, our Executive Secretary, who kept the members of the legislature informed at all time as to our position on all bills affecting the public in health matters; and to all the members of the legislature who honestly strove for light and information regarding bills that were introduced in the last session of the legislature concerning public health matters, and who after being convinced of our aim and purpose to protect the people of New Jersey in health matters gave us their support.

President Mulford: You have heard this report of the Chairman of the Welfare Committee, what is your pleasure?

Member: I move its adoption.

The motion was seconded and carried.

President Mulford: We shall now have the Report of the Judicial Council, Dr. Christopher C. Beling, and I take this opportunity, gentlemen, to express the appreciation of the State Society in having restored to health our friend, Dr. Christopher C. Beling. He has suffered untold agony in the last 6 months and we are glad to have him back again among us. (Applause.)

Dr. Christopher C. Beling: In response to what the President has said, gentlemen, I wish to say that I regret very much that I couldn't attend the meetings of the component medical societies this year because of my illness but I am glad to be here and to be able to read the report of the Judicial Council.

Report of the Judicial Council for 1928-29

In the first district, the society has maintained a high degree of efficiency. There were no suits under the Medical Defense Act. One member has been threatened with a suit.

In the second district regular meetings of extraordinary interest have been held throughout the year. Two suits were brought against members. One was defended successfully and the other is pending.

In the third district, the societies are in good condition. No suits are pending.

In the fourth district, the regular meetings of the different societies have been well attended. The scientific programs have been very ably presented and fully discussed. No damage suits were brought to the attention of the Council.

In the fifth district, regular meetings of societies were held and well attended. The case of Dr. Egbert was settled satisfactorily. The Cumberland County Society, at a regular meeting, exonerated him of all charges. There were no damage suits.

The Judicial Council has given careful consideration to the subject of the defense of members against malpractice suits under the Medical Defense Act of the Medical Society of New Jersey. The Judicial Council recommends that the present Medical Defense Act of the society should be repealed. As it now appears, those members who do not carry liability insurance may have a sense of false security in the belief that the society's defense is adequate.

Every member of the state society is strongly urged to carry liability insurance such as is now offered by the state society in its liberal contract with the insurance company.

The Council is of the opinion that the society should make the possession of at least a minimum insurance policy against malpractice one of the

requirements of membership. The suggestion is, therefore, offered the members for their consideration.

Respectfully submitted,

Christopher C. Beling, Chairman,
First District.
Francis H. Todd,
Second District.
F. G. Scammell,
Third District.
Marcus W. Newcombe,
Fourth District.
Aldrich C. Crowe,
Fifth District.

President Mulford: You have heard this report of the Chairman of the Judicial Council. Automatically his recommendations are referred to the Business Committee.

We shall next have the Report of the Committee on Finance and Budget, Dr. Harry R. North, Chairman.

Dr. Harry R. North: Mr. President and Gentlemen: I regret to state that it was impossible to get the committee together this morning so those members who were not present will have to excuse it if things don't suit them.

I want to state in the first place that there is a By-Law which provides that the Chairman of each committee shall submit to the Chairman of the Finance Committee 2 weeks in advance of this meeting his financial needs for the coming year. That is practically never done. This year we had only 2 men, Dr. Morrison and Dr. Reik, who complied with that law. Therefore, your committee is never able to fix up a budget until we arrive at Atlantic City on Tuesday night or Wednesday morning.

Furthermore, I take it that we are supposed only to arrive at a budget. As far as salaries are concerned, that is up to the House of Delegates or to the Board of Trustees. We are not presuming to fix salaries.

We have arranged a budget as follows: The Publication Committee, $1300. Last year they asked for $1200 but they spent $1300. Now they are asking for $1300 but I have an idea they will spend $1400. The Welfare Committee has been reduced from $750 to $500. Under Dr. Reik's department, the salaries there aggregate $13,000. His traveling expense, which previously has been $1750, now is made $2000 by his request; we have carefully considered his request and believe it is justifiable. Dr. Reik's office expense has previously been $2000. It is now made $2400. Up to this time Dr. Reik has had to use his own home as an office. It has become necessary for him to have an office for the Society and that will cost $900 rent, so there is an additional $900. For the Conference of Secretaries and Reporters, $100. For the Tristate Conference, $100. Credentials Committee, $400. Printing, $1800; which is $300 more than last year in view of the fact that our new By-Laws cost approximately $300. The Treasurer, $300. That ought to be more, of course. The Recording Secretary account has been $2250, which I believe everybody in the Society realizes has been a ridiculous figure for the work Dr. Morrison has done. Now we have made it $3400. This is by order of the Board of Trustees to increase Dr. Morrison's salary. For legal expense, $1000. A. M. A. Delegates, $750. That is estimated; we don't know how much it will be. The contingent fund, $2500. Then, Dr. Reik has asked for some furniture for our office, which will cost approximately $500.

That bring the total to $42,450, and about the only income we can expect is $36,250, which leaves a deficit of $6200. With 2700 members, if we add $2 apiece, it doesn't make up the deficit. So, speaking for myself—I can't speak for the whole committee—my suggestion is that we make the dues this year $15.

It seems to me that in a society as old as this, the oldest State Medical Society in the nation, we should have some sort of a sinking fund. I realize that according to the Treasurer's figures we do have some $8000 tucked away in bonds. That is pretty good security and certainly as a business house, we can't expect to run if we are going to play penny for penny each year.

Speaking for my own county of Mercer—and that is a pretty small county, about 140 members—we have tucked away something over $6000 for our local society. You might say, "For what?" We don't know but I have an idea that it will come in pretty handy some time. This society can save $4000 or $5000 a year and soon we may be able to get some of those things that Dr. Reik has spoken about —a place for permanent records, a decent home of our own, or something of that sort.

President Mulford: Gentlemen, you have heard the report of the Committee on Finance and Budget. What will be your pleasure?

Member: This report is open for discussion at this time; otherwise it has to lie over until the final session before it can be adopted. So, unless there is a discussion, I move it be laid on the table.

Dr. B. S. Pollak: As a member of the Finance Committee, I think that this matter ought not be laid over until such time when the majority of the Delegates go home because, as you can readily understand, it will need ac-

tion on the part of the House of Delegates to increase the assessment of each individual member to be paid to the Society. According to the figures submitted, it will be necessary for the county societies to pay $15 a year dues per capita instead of $10, which they are paying now, and that might be a problem of some severe moment in so far as some of the county societies are concerned. I believe all of us recognize that in order to carry on the business of this state society, whose work is becoming greater and greater each year, we must have funds, and therefore I consider personally that it is a very important matter, one that ought not to be, so to speak, assassinated by being placed on the table, putting us in the position that when the Society meets on Saurday morning the Board of Trustees will be confronted with a budget $6000 in excess of anticipated revenues.

Secretary Morrison: I would like to say a few words about this report. It is a recognized fact that the State Medical Society of New Jersey is one of the most progressive societies in the Union. It is referred to at our Conference of Secretaries of State Associations in Chicago almost every year. The A. M. A. points with pride to the vast amount of work done by the State of Illinois, the State of Texas, the State of Maine and the State of New Jersey. In the vast majority of the State Medical Societies the dues begin at $15 and go up to $50 because the men in those states are actively engaged in conflict with the cults and they realize that educating the public costs money. Here in New Jersey we are spending from $4000 to $6000 putting over an educational campaign and we can see its effects. The effect upon the legislators in New Jersey this year has been very, very marked, not only from the personal efforts of the members of the Welfare Committee to meet these men but from what they hear through the results of our educational campaign. This work cannot be conducted successfully, we cannot continue to maintain the standards we have set, unless we increase our dues. It seems to me dues of $15 would meet with no opposition from any member in the State of New Jersey.

President Mulford: I would like, gentlemen, to be privileged to add my voice to this comment at this time. Having traveled around this state in the last 4 years, I find that the work of organized medicine has grown tremendously. So rapid has been the advance of medical progress that increased funds have had to be asked for just in recent years. Now the time is ripe when we must take a definite stand as to whether we want to advance, whether we want to remain stationary, or whether we want to return into that slough of decay that held us a few years back. You cannot increase in efficiency, you cannot grow in usefulness, without spending money. The only way that I see that this deficit can be avoided is by increasing our dues.

Gentlemen, are we going to let the work of Donohoe and Conaway, those 2 pioneers who have gone about the state arousing enthusiasm and arousing interest, are we going to let the work of Reik and Morrison fall back into decay? I ask you. Please, let us grow and develop.

Dr. M. W. Newcombe: As far as this report is concerned, we had in mind, in view of the fact that so many damage suits have been filed in the State of New Jersey, that possibly it would be a good thing to suggest to the Board of Trustees and the Society that the dues be increased to include a small liability insurance policy for every member. There are a number of suits filed against members who have no insurance and it was the idea of the Council that it might be a good thing to increase the dues so that each member would have a minimum policy of $5000 or $7000 or $8000 or $10,000, whatever you wanted to make it. That was the idea of Dr. Beling's report.

Secretary Morrison: If that were done, the smallest fee for a policy of $5000 to $10,000 or $10,000 to $20,000, as given today by the insurance company is $15. We would have to start with $15 in addition to what we already ask, in addition to what the Budget Committee already asks, if we adopted any such policy. Why should the entire membership of the State of New Jersey pay an indemnity policy for the individual members? They are having their own practice, making their own money. Why shouldn't they carry their own insurance? The fact that we have had this medical indemnity act on our books for so many years has not done us any good. The young physician opening up his office today is far better equipped for the practice of medicine than were our older men when they began. He has an up-to-date automobile for $1000 or $1800 or $2000. The younger men are doing well. Why shouldn't they carry their own protection? Why should they expect the State Society to carry it for them? This Judicial Council is asking that this Medical Defense Act be repealed on this contention.

Dr. B. S. Pollak: Do I understand the motion to table has been seconded? If so, I realize it is not debatable.

President Mulford: The motion has not been seconded.

Dr. B. S. Pollak: Then I move that in addition to the pioneers that you have mentioned, you too be included in this triumvirate of pioneers, and we proceed to assess the membership at $15 per annum henceforth.

The motion was seconded by Dr. Brandenberg.

Member: That still has to lie on the table.

Secretary Morrison: That can be adopted any time. The adoption of the Budget Committee's report must lie over for final action at the last session.

President Mulford: The raising of the dues can be passed at this time. This motion on the raising of the dues has been seconded. It is open for remarks.

The question was put and the motion carried.

President Mulford: I will now listen to a second to the motion to lay the report of the Finance and Budget Committee over until the last session of the House of Delegates.

The motion was seconded.

President Mulford: It has been regularly moved and seconded that we extend a vote of thanks to Dr. North for his Finance and Budget Committee report and that the final report of this committee be heard later.

The question was put and the motion carried.

Dr. F. J. Quigley: I move that the Report of the Special Committee on Revision of the Constitution and By-Laws be made a special order of business at 2:30 this afternoon.

The motion was seconded and carried.

President Mulford: We will now hear the Report of the Committee on Honorary Membership.

Dr. W. G. Schauffler: The Committee on Honorary Membership has no report to make —no names to propose.

President Mulford: We will have the Report of the Treasurer, Dr. Elias J. Marsh.

Dr. Elias J. Marsh: The Report of the Treasurer has already been published in the Journal and so is in the hands of every member. In somewhat abbreviated form, for convenience, it is before you here on the board. I won't read it all unless somebody wants to hear it but I will call attention to one or two points.

Annual Report of the Treasurer

June 1, 1928, to May 31, 1929

A.

PERMANENT FUND

DR.	
June 1, 1928—	
From "Capital Account"	
2 M 1st Liberty Loan 3½% Bonds	$2000.00
4 M 4th Liberty Loan 4¼% Bonds	4000.00
August 31—	
From "General Account"	
1 M Chicago & Alton 3½% Bond	786.50
Cash	2000.00
	$8786.50
CR.	
May 31, 1929—	
2 M 1st Liberty Loan 3½% Bonds	$2000.00
4 M 4th Liberty Loan 4¼% Bonds	4000.00
1 M Chicago & Alton 3½% Bonds	786.50
1 Mortgage Certificate, Investors Title and Mortgage Guarantee Company	2000.00
	$8786.50

B.

GENERAL ACCOUNT

RECEIPTS

Balance, June 1, 1928		$18,576.60
Assessments—		
Atlantic	$1250	
Bergen	1700	
Burlington	465	
Camden	1280	
Cape May	200	
Cumberland	450	
Essex	7055	
Gloucester	320	
Hudson	4250	
Hunterdon	260	
Mercer	1420	
Middlesex	1000	
Monmouth	880	
Morris	840	
Ocean	190	
Passaic	1990	
Salem	160	
Somerset	390	
Sussex	190	
Union	2015	
Warren	270	
		26,575.00
Publication Committee		8,152.06
Arrangements Committee		40.48
Health Examination Charts sold		4.35
Interest		740.28
		$54,088.77

PAYMENTS

For Publication Committee		$12,820.89
" Welfare Committee		748.45
" Credentials Committee		324.61
" By-Laws Committee		84.50
" Health Insurance Committee		30.00
" Arrangements Committee		77.84
" Board of Trustees		3.50
" Executive Office:		
Salaries	$13,000.00	
Travel	1,733.68	
Office expenses	1,997.08	16,730.76

" Treasurer's Office		58.00
" Recording Secretary:		
Salary	950.00	
Office expenses	1,288.05	2,238.05
" Expenses of Delegates to A. M. A.		313.50
" Legal Services		708.46
" Printing & Stationery		1,463.28
" For Tristate Conference		144.40
" County Secretaries' Meeting		99.30
" Cataloguing		39.00
" Error in printing bill, 1928		20.00
Transferred to Permanent Fund:		
C. & A. Bond	786.50	
Cash	2,000.00	2,786.50
Balance, May 31, 1929		15,397.73
		$54,088.77

C.

RECONCILLIATION WITH BUDGET

Expected Income	$35,000.00
Actual Income	35,512.17
Appropriations	37,350.00
Expenditures	35,904.54
Budget Surplus	1,957.63
Actual Net Deficit	391.37
Budget Balance to 1930	231.27
(Cash Balance, less 7/12 of Assessment)	

Respectfully submitted,

E. J. Marsh,
Treasurer.

Report of Receipts and Expenditures of Committee on Program and Arrangements, July 1, 1927, to June 30, 1928. (Covering the 1928 Annual Meeting)

Total receipts from exhibit space rentals and program	$1800.00
Less 20% to Sec'y of Committee	360.00
	1440.00
Received from exhibitors for signs at booths	139.00
	1579.00
Less expenditures (see itemized list attached)	1538.52
	$ 40.48
Check inclosed	40.48

Expenditures of Committee on Program and Arrangements, July 1, 1927, to June 30, 1928

Stenographer service	$ 83.50
Expenses to New York and Phila. (Sec'y. of Committee)	76.00
Dr. M. W. Reddan, Ac/ct, expenses	20.00
Paid to Mrs. Jas. Hunter, ac/ct entertainment 6/7/28	300.00
Foster Shop, prizes used at dance 6/8/28	16.00
Tips to exhibit hall attendants etc.	15.00
Wires, long distance phone calls, taxis	14.75
Signs for committee rooms and registration desk	13.00
Signs for exhibit booths	141.00
Shill Rolling Chair Co.	231.00
Paid Mrs. E. H. Harvey for card party prizes	21.90
P. O. Box rental, 1 year	6.00
Paid Haddon Hall for talent, orchestra, hotel charges, incidental dance expenses, setting up exhibit hall	467.12
Paid Haddon Hall, refreshments, card party 6/8/28	88.25
Movie and lantern operators	25.00
Watchman for exhibit hall	20.00
	$1538.52

Dr. Marsh: This makes an operating deficit for the year of $391. That is to say, the Society's income failed by that much to meet the expenses, the difference having been made up from the balance. For 2 or 3 years now we have been running a little bit behind, making up the difference on the accumulated balance, which is now practically exhausted. Dr. North in his report didn't mention it because it is practically zero at this time. From this time forth, the Society, unless it accumulates a little more, will have to operate on its income for the year.

We have in the permanent fund invested in securities $8786.50, which is not very much for a society as large and as old as this to have accumulated in this length of time. Dr. North told us that Mercer County has already accumulated something over $6000. I hope we will be able, if we raise the assessment, to put perhaps a little bit aside from time to time from the balance to increase that fund until we are able to get some of the things, such as the home, that Dr. Reik and the other officers recommended.

Mr. President, there are one or two things that I would like to call to the attention of the members because I have had so many requests for information this past year about the state of the treasury and about the state of the Society, whether it was going bankrupt or not. The budget system under which we are running now appropriates a certain amount of money for certain specific objects or committees or work, and when that money is so appropriated that committee or officer can use that much during the year and it is up to his judgment whether he spends it all the first week after the annual meeting or whether he distributes it so as to cover his period of work for a year. Sometimes that can't be done very exactly because a committee's work may be uncertain or may come at one time and not at another. The point is that when that officer's budget is exhausted, the treasury, for him, is empty, no matter how much somebody else has got available. One or two officers have exhausted their appropriation early, at least before the end of

the year, and no more has been available for them—it didn't make any difference how much might be in some other man's budget. That doesn't do them any good. Several times I have had requests to know how much money the Society had in the treasury. The amount of cash in the treasury is practically of no interest to anybody except the Treasurer and the bank, because it is not available. If it is appropriated to one individual, it is not available to another. There never has been a time when there hasn't been a cash balance in the bank but there have been times when there was none available for some particular purpose because that committee had exhausted its budget and couldn't touch anybody else's. They don't seem to like this nor to understand it. I want to make this explanation to the members so they will understand in case the question comes up again.

There is one more thing I want to mention, Mr. President. Two or 3 years ago I had occasion to consult a firm of expert accountants with regard to certain points in the Society bookkeeping, that my accounting education wasn't equal to, and at that time they very gladly gave their services because the head of the firm said he was already under such an obligation of gratitude to the medical profession that he was glad to do what he could for us. Recently, I have called on them again and they have given me the same answer, that they were only too glad to help. So I think it would be very nice if somebody would move the gratitude of the Society be expressed to this firm of accountants through the Corresponding Secretary or otherwise, but coming from the society.

Dr. N. L. Wilson: I move that the Recording Secretary send the thanks of this Society to this firm of accountants.

The motion was seconded and carried.

President Mulford: You have heard this excellent report of the Treasurer. What is your pleasure?

Dr. B. S. Pollak: I move it be received and filed.

The motion was seconded and carried.

President Mulford: Next we will have the Report of the Secretary of the Board of Medical Examiners.

Dr. Kelley: Our report will be presented by Dr. Becker, President of the State Board of Medical Examiners.

Report of the State Board of Medical Examiners of New Jersey

Presented by Leo V. Becker, M.D., President

Since the last Annual Report of the Board, several interval reports have appeared in the Journal, and another report of prosecutions will probably appear within a short time as it is now in the hands of the Editor. The following is a brief résumé of the Board's many activities:

Licenses. There have been issued 261 licenses to M.D.'s, and of this number 60 were on examination and 201 by endorsement of other State or National Boards of Examiners; 40 licenses have been issued to osteopathic physicians; 30 by examination, and 10 by endorsement; 3 licenses have been issued to chiropractors under the exemptions in the law; 2 by examination and 1 without examination under the clause requiring the Board to issue a license to a Spanish-American War Veteran; 13 licenses have been issued to chiropodists by examination and 11 licenses to midwives by examination; 17 doctors of medicine, 4 doctors of osteopathy, and one chiropractor have been endorsed out of the state.

Revocations of Licenses. Two physicians and 4 midwives have had their licenses revoked or suspended. There are 2 cases of physicians and 1 of a chiropodist listed for a hearing before the Board on charges that may result in the revocation of a license.

One of the medical licenses revoked was that of John Newhall Kirk who conducts several advertising offices in Newark. In endeavoring to find some way to control these offices the Board looked up the record of Dr. Kirk and found that he had been convicted of a felony in the State of Maryland, in 1922. The Board revoked the license under the clause in the Medical Act which provides for a revocation of license for conviction of a crime involving moral turpitude. The second medical license revoked was on a charge of the practice of criminal abortion. All of the midwifery licenses were revoked, or suspended, for the practice of criminal abortion.

There have been a number of appeals for the restoration of revoked licenses, but the Board has maintained the attitude that they would not restore a license unless the applicant received approval of the county society of the locality in which the applicant had been practicing. This is in accord with the resolution passed 2 years ago by the State Medical Society.

Court Decisions. During the past year the 2 very important decisions of the New Jersey Supreme Court, holding that a license to practice osteopathy does not include the right to practice electrotherapy, and that the license to practice chiropractic does not confer the right to practice electrotherapy, or use other adjuncts, have been sustained by the Court of Errors and Appeals. The same Court has also sustained the Supreme Court in the case of the Board vs. The Mecca College of Chiropractic. Several other cases won by the Board, appealed by the defendant to the Supreme Court, have been decided in favor of the Board.

Prosecutions. Numerous complaints have been received and every one has been given attention. A great many of these cases are still under investigation. The following is a brief résumé of the cases that have been tried:

COURT CASES

Won and settled	48
Won, appeal by defendant to Supreme Court taken	1
Won, appeal by defendant to Supreme Court, conviction sustained—appeal by defendant to Court of Errors—conviction sustained	4
Decision reserved	1

Won, appealed by defendant to Supreme Court	1	
Convictions sustained	1	
Midwives, failure to register	2	
Chiropodists, failure to register	1	
Listed in Court for trial	22	
	—	81

HEARINGS BEFORE BOARD

Medical

Licenses revoked	2	
Listed for hearing	2	

Midwifery

Licenses revoked	3	
Licenses suspended	1	

Chiropodist

Listed for hearing	1	
	—	9
Total		90

The following is an analysis of the inspections and investigations made during the calendar year of 1928. This report covers the period from January 1 to December 31, 1928:

Class No.	Investigation	Number investigated	Number of visits necessary to be made
1	Druggists practicing medicine	31	165
2	Sale of Herbs and Drugs	28	169
3	Chemists and Laboratories	0	0
4	Medical Doctors	19	58
5	Unlicensed Chiropractors	34	147
6	Chiropractors exceeding license	14	126
7	Osteopaths exceeding license	8	52
8	Chiropodists, unlicensed and exceeding license	6	34
9	Masseurs and Massage treatments	6	12
10	Electrotherapy	16	94
11	Naturopaths	17	133
12	Midwives, unlicensed and exceeding license	10	32
13	Spectrochrome	4	18
14	Optometrists exceeding license	0	0
15	Laying on of hands	3	55
16	Miscellaneous	20	33
17	Medical—revocation	5	7
18	Midwifery—revocation	3	12
19	Physiotherapists	2	9
	Totals	226	1156

Average number of visits per investigation, 5.11

President Mulford: You have heard this Report from the Board of Medical Examiners.

Member: I move that the report be accepted.

The motion was seconded.

Dr. F. W. Pinneo: This serves to illustrate coöperation between the county clerk and the medical profession. New applicants examined by the State Board receive a certificate prior to the issuance of their ultimate license. This is offered to the county clerk when they register in the county and is kept for file; in our county society elections we make the ballot a record of his qualifications and we suggested to the county clerk in this certificate he should inscribe the date of the state's license, the license not having been received. The county clerk was so coöperative that he at once ordered that this should be done, making, therefore, the record of the county society complete and showing how accurately the county clerk keeps the record of applicants for registry.

President Mulford: Are there any further remarks?

Dr. Becker, in behalf of the State Society, I want to thank you for bringing this report to us and to thank you again for the splendid interest you have shown toward the State Society this year and assure you of our hearty and continued coöperation.

The question was put and the motion carried.

President Mulford: Our next order of business is the Report of the Committee on Public Hygiene and Sanitation, Dr. G. K. Dickinson, Chairman. Is there anybody here to represent that committee?

Dr. Harvey S. Brown: I believe no particular work has been done except that we feel, as a committee, that we should direct our attention toward the question of having in each county mental hygiene clinic; that we can look forward to this perhaps in a way as an objective for the future. If Dr. Dickinson is not able to report, I can only say that is the program that we started upon and I don't believe the report is yet in such shape that it can be made at this time. I might suggest that if there is an opportunity and Dr. Dickinson does come in, he will later present that report in its entirety. I would request that the committee be given time this afternoon for presentation of this report.

President Mulford: With your permission, we will pass this on until the afternoon.

We will now have the Report of the Committee on Standardization of Hospitals, Dr. John C. McCoy, Chairman.

Dr. John C. McCoy: Dr. Becker, Chairman of the State Board of Medical Examiners, did not include, it seems to me, one of the most important items which called for a tremendous amount of labor and expenditure of time during the past year; namely the visitation and standardization of the various hospitals of the state, which is necessary in order that they may know just what their status is before they permit applicants for license to apply for their internships.

Your Committee on Hospital Standardization as the years have rolled by, particularly of late, has found that it had less and less to do. When we started 15 years ago, as you know we were the first state in the Union to

endeavor to standardize our hospitals. At the present time we have the American Medical Association, the American College of Surgeons and the State Board of Medical Examiners, which organizations are caring for the standardization of hospitals in the state. We have been called upon once during the past year in an advisory capacity to meet with the State Board of Medical Examiners in Trenton, in conjunction with the officers of the State Hospital Organization, relative to the so-called standard hospitals in this state as compared with those in Pennsylvania and New York States.

I understand that the new Constitution and By-Laws which are to be submitted this afternoon make provision for a Committee on Education and Hospitals. I suggested to you, as Chairman of the Committee last year, and it was the consensus of opinion of our committee, that the days of usefulness of the Hospital Standardization Committee *per se* had practically gone by and it seems to me it is rather futile to maintain this Hospital Standardization Committee from now on.

There are questions which always will arise in hospital administration, but we have, in addition to the 3 organizations which I have already mentioned, a well established, well organized and efficient New Jersey State Hospital Organization which is caring for the hospital end of the work as we did a number of years ago.

President Mulford: You have heard Dr. McCoy's report. What is your pleasure?

Dr. Charles B. Kelley: I would like to make a few remarks in regard to what Dr. McCoy has said. There is one phase of hospital training at the present time which is rather important. New Jersey law provides that an applicant, "if he has graduated after the first day of July, 1926, shall, in addition to the other requirements, further prove to the Board that he has served as an intern for at least one year in a hospital approved by the Board". That is the exact language of the law. However, when that statute was enacted, the first problem to be solved was that of deciding what constituted an approved hospital and that was pretty well taken care of by the Committee on Standardization, of which Dr. McCoy was the Chairman.

In speaking of that, I would like to emphasize that it was the first committee any place in the country that made any attempt at standardization. It antedated the American Medical Association and the College of Surgeons. That work was finally turned over to the Board of Medical Examiners and we have attempted to carry it on since. In our standardization work we have been guided very largely by the ideals as set forth in the pamphlet of the American Medical Association.

At the present time when a hospital applies for recognition we send out a questionnaire and the hospital must meet certain basic requirements as to size and facilities. That is followed by a personal inspection by the committee and, finally, the hospital must also be on the approved list of the American Medical Association and the American College of Surgeons. We feel that to inspect hospitals outside of the state is manifestly impossible and consequently for hospitals outside of the state, the Board relies on the rating of the American Medical Association and the American College of Surgeons, and we will accept any hospital so approved in any state provided the sister state will accept New Jersey hospitals. That seems to us so eminently fair that we can't see why we should have any trouble with it and yet that is the whole crux of our trouble with Pennsylvania.

The reason I emphasize that at the present time is because of the attitude that the Pennsylvania Board has taken in refusing recognition to many New Jersey hospitals, and a number of New Jersey physicians have an idea that we are not playing fair with the young graduate. As a matter of fact, we are very fair to the young graduate and we are particularly fair to the New Jersey hospitals. You men who are connected with hospitals, if you will think the problem over, will realize that you are getting interns now whereas you didn't get them 3 or 4 years ago when Pennsylvania was forcing all of her Pennsylvania graduates into Pennsylvania hospitals.

After a hospital is placed on the approved list, there still remains a second phase of the problem of what shall be considered the proper training of an intern and who shall see that the training is properly given. Before going into that question, however, it may be well to settle the question as to whom the intern training should be given. There is a tendency at the present time for many hospitals to accept as interns men who come from inferior colleges and who will not be eligible for license later in the state. We believe hospitals should accept for training only those men whose credentials will later make them eligible for license. In other words, a man should only be accepted into his fifth year of training when he has successfully completed his fourth year at an approved college.

At the present time a man cannot go into advanced standing in any college unless he has satisfactorily completed his preceding year at a college of equal grading, but when

it comes to an intern in his fifth year of training many hospitals accept him even though he comes from an absolutely unrecognized school. That is the particular point that I would like to bring out, as to whether or not the Board, by proper legislation, should be given the power to pass upon the credentials of the fourth year man before he starts his internship and make it mandatory upon hospitals to accept for interns only those men who are eligible for the fifth year training. As it stands at present, the Board receives applications for license from men who have graduated from schools which are absolutely not acceptable, such as Middlesex or St. Luke's College of Physicians and Surgeons, or other Grade C schools. And, by the way, they are not even given recognition as Grade C any more; they are not even recognized by the American Medical Association. These men will base their chief argument upon the fact that they have had a New Jersey internship. Not only that, but they have come endorsed by the superintendent of the hospital and by the president of the staff of the hospital, and they can't see any reason why they shouldn't get a license in the state when they have had their internship. It raises a very embarrassing question and the Board feels it would be a good thing if some sort of a temporary license could be issued, as the Dental Board is now doing, to cover the intern; that is, in other words, allow him to practice in the hospital for one or two years, which the law requires before he can take his examination. That is the question I would like the Society to give consideration to and if it can't be discussed here today, at least refer it back to the Hospital Standardization Committee and the Welfare Committee, and if those 2 committees feel that the Board is right after going into this matter, allow us to put the proper legislation into effect next winter.

Dr. E. J. Marsh: I move you, sir, that the question raised by Dr. Kelley of requiring, as I understand his idea, a temporary license for admission to internship in a hospital in this state, be referred to the Hospital Standardization Committee for an opinion.

The motion was seconded by Dr. B. S. Pollak and carried.

Member: I move that Dr. McCoy's report be received and filed.

The motion was seconded and carried.

President Mulford: We will now listen to the Report of the Committee on Indemnity Insurance, Dr. Christopher C. Beling, Chairman.

Report of the Committee on Indemnity Insurance

The Committee reports that during the past year a change in the form of the professional liability policy was made to conform to the requirement of the law.

The Commissioner of Banking and Insurance of the State of New Jersey instructed all insurance companies to cease writing any form of group insurance policy except life, personal health and accident insurance because there was no provision in the law authorizing it.

June 10, 1929.

The following information is presented by the Insurance Company:

"In view of the fact that the Insurance Commissioner desires the New Jersey Medical Society contract be redrafted in order to conform with the insurance laws, we take pleasure in informing the members of the society that U. S. Fidelity & Guaranty Company has issued a new contract, and one that not only clarifies the coverage but further extends the protection afforded the doctor, especially covering all claims, and which has met with approval of the State Insurance Department, Counsel for the society and its President.

Under all forms of malpractice insurance policies the Companies agree to indemnify the doctor.

The Company has gone one step further in the new form contract by eliminating the word "indemnify", which has in the past created a great deal of misunderstanding between Company and assured, as the interpretation of the word has rested greatly on the way the word has been used; in many instances being interpreted as meaning reimburse, which would cause the assured to pay the claim first then be reimbursed by his Company. This we have eliminated.

Our insurance clause is very clear, showing that the United States Fidelity & Guaranty Company agrees to pay losses of the assured due to alleged malpractice, error or mistake, etc.

The new contract is wide in its coverage and the doctor will understand that suits based on criminal acts or services rendered while under the influence of intoxicants or drugs are the only exceptions, and that even in this class of suits the Company will undertake the defense until it has proved such exception.

Each doctor will be given, on expiration of his present contract, an individual copy of the new policy, a copy of which is on file with the trustee of your society.

We are further pleased to advise that inasmuch as the Insurance Commissioner had held that our group policy as issued before was not in conformity with their ideas and contrary to the insurance laws, that the Company will recognize any claim that may arise under the old contract and settle same on the basis of the new contract offered the society."

The claims under physicians' policies in suit reported since June 1, 1928, were 14 in number, and of those reported before June, 1928, 15 in number, are all open with the exception of one, which was settled out of court.

The Committee makes the following recommendations: (1) Renewal of the contract; (2)

acceptance of the new form of policy; (3) each member of the society be required to carry a minimum insurance policy of $10,000-$30,000.

Respectfully submitted,

Christopher C. Beling,
Chairman.
Alexander Marcy, Jr.,
John McCoy,
Edgar A. Ill,
Erwin Reissman,
Committee.

President Mulford: You have heard the splendid report of Dr. Beling; what is your pleasure?

Dr. B. S. Pollak: I move that it be accepted with the exception of the last clause because I don't believe we can force men, by a resolution of any committee of ours, to indemnify themselves by taking indemnity insurance.

The motion was seconded and carried.

Member: Does that include the last recommendation?

President Mulford: No, the report was just received.

As it is now ten minutes of one, I think we will adjourn.

Secretary Morrison: Before we adjourn, we might get one other matter of business completed. This is the year for revision of the United States Pharmacopeia and the State of New Jersey is entitled to 3 representatives on the Board of Revision. In the past we have been represented by Dr. John Anderson, of New Brunswick, who is the Vice-President of the Squibb's pharmacy concern. I would like to move that Dr. Anderson be reappointed our delegate with the privilege of choosing his other 2 associates.

The motion was seconded and carried.

The meeting adjourned at 12:50 o'clock.

Wednesday Afternoon Session

June 12, 1929

The Wednesday afternoon meeting convened at 2:15 p. m., Dr. E. R. Mulford, President, presiding.

President Mulford: The required quorum being present, I will call the meeting to order.

The next order of business is the Report of the Committee on Public Hygiene and Sanitation, Dr. G. K. Dickinson, Chairman.

Dr. G. K. Dickinson: In the winter Dr. Spence read a paper before one of our smaller societies on a topic so appealing that we felt it would be wise to ask him to enlarge upon this topic and bring it before the committee, which he did. We asked him to draw up a resolution to present and as he is the one most familiar with it and better able to answer any question, I am going to ask him to read it and talk to you.

Dr. Henry Spence presented the prepared Report of the Committee on Sanitation and Hygiene.

Report of Committee on Public Hygiene and Sanitation

Your Committee on Public Hygiene and Sanitation has canvassed several matters in the interests of public health and can find none of more vital importance to the state to which we, as a body, might devote our attention, than that of furthering the formation of numerous properly planned psychiatric clinics. The problem child, if not properly guided, may become the future ward of the state, either in a mental hospital or a penal and correctional institution. Dr. Joseph E. Raycroft, Professor of Hygiene, of Princeton University, suggests "There must be developed means of making an earlier diagnosis of tendencies and weaknesses that may, under strain, develop into one or another form of mental weakness or insanity, and a well devised program to counteract such tendencies".

Your Committee is convinced that the proper plan of attack on insane and correctional cases is in the young, and that by such action we may surely prove the solution of another problem in preventive medicine. We particularly recognize New Jersey's splendid position in public welfare work under the wise guidance of Commissioner William J. Ellis, of the Department of Institutions and Agencies, and call your attention to a statement in his last public report wherein acknowledgment of many successes was made "possible only by the growing movement for coöperative effort between private and public welfare agencies of all types".

In the same report under the caption, "Penal and Correctional Institutions", we read: "Each inmate, upon admission, is studied by specialists from the following points of view: medical, psychologic, psychiatric, educational and industrial, social history and background." Let us help to make this study possible before the great part of the damage has been done. The enormity of our problem can be appreciated in a practical way by noting the fact that New Jersey, during the last year, spent a gross sum of over $6,000,000 for the maintenance of its state wards. This sum, of course, does not, in any way, take into consideration the vast sums used in our several counties in support of a like service. The insane population has been growing more rapidly than has the total population in almost every state of the Union.

New York is now spending the first $50,000,000 of a program of $150,000,000 simply to bring her state hospitals up to the present problem. We believe that we are spending great sums of money on the wrong end of the game. We, therefore, recommend that the State Medical Society, through some permanent committee, coöperate with the Department of Institutions and Agencies of New Jersey, to the end that all problem children and all delinquents, so far as possible, be intelligently and properly cared for.

We recommend, also, that this body do all in its power to stimulate the development of Psychiatrists, Psychologists and other trained workers for this great and important service.

Committee on Public Hygiene and Sanitation.
G. K. Dickinson, Chairman.

Dr. Henry Spence (Jersey City): Dr. Plant, tomorrow morning before the Pediatrics Section, will read a paper describing an ideal type of clinic. We have mentioned a psychiatric clinic more for the purpose of making that an instrument by which all classes of problem children and delinquents and any individual who might need that kind of examination could obtain it. We are satisfied that great sums of money are being spent now in building up jails and correctional institutions and hospitals for these peculiar types that is a waste of money. The place to spend this money is on the young. The insane and the criminals are developed in the youthful periods of life. And we find that a good deal of misguided effort is being expended on these subjects. The probational schools, of course, can be criticized to quite an extent. They are forced to do something when these youngsters get along to a stage where they have been delinquent but that shouldn't be the place where the real effort should be set forth. It should be set forth before the time perhaps when they are of school age, at least at the time when they are of school age and here is another opportunity for some of these cases to be weeded out. It is a sad thing to think that in this day and age a boy 18 years of age, who is unquestionably a mental defective, probably insane, should be killed. Of course, it doesn't make so much difference, when you consider that he probably participated in 3 murders, that society is rid of him, but it certainly takes us back to the ages when they had chains to take care of insane people. It is not the up-to-date way of doing things. There is a possibility if that boy had been studied when he was a small boy, before he had become a derelict, that he might have been marked and weeded out, and there is the possibility that the 3 murders which he undoubtedly committed would not have been committed because the facts are that his mother was in an insane institution, that his father deserted his family when this boy was 7 years of age, that the mother had parents and grandparents who were of peculiar mentality, and that this boy had a history of hearing voices. All of these points came out after the boy was executed.

If we can discover these weaknesses, if we can discover this lack of balance in the child before he has become a derelict, then we may save ourselves many insane people and many criminals, and we think this is an important subject that this Society ought to take hold of because, after all, doctors are the ones that discover the cases earliest and they are the ones that are most likely to be interested in a proper direction of their care.

President Mulford: Gentlemen, you have heard this splendid report of the Committee on Hygiene and Sanitation, what is your pleasure?

Member: I move that the report be received and the recommendations adopted.

The motion was seconded.

Secretary Morrison: I think this is the second time we have had a report from the Committee on Hygiene and Sanitation in the last 4 years. They have complained that there was little or nothing for them to do. This report touches a very vital point of interest in the citizenship of New Jersey and I think we can very well meet the recommendation of Dr. Spence in turning the supervision of mental hygiene over to the Committee on Public Hygiene and Sanitation.

Dr. Dickinson: We had hoped that you would appoint a special committee made up of alienists and those acquainted with the psychology and pathology of the mind.

Secretary Morrison: Call them into your committee.

Dr. Dickinson: We are just ordinary men.

President Mulford: Sometimes these ordinary fellows can direct it a lot better.

Dr. Dickinson: A fellow like Haskins and the other men can do a lot of work on this subject.

The question was put and the motion carried.

President Mulford: We will now have the Report of the Committee on Group Health and Accident Insurance.

Dr. Pinneo: Dr. Green has our report and he is being paged. We can't locate him at the moment.

President Mulford: We will proceed to the special order of business, which is the report of Dr. Quigley and his Committee on Constitution and By-Laws.

Dr. Frederick J. Quigley: Mr. President and Members of the House of Delegates: The first thing I should like to do is read the names of the members of this committee that has been charged with bringing in a draft of the Constitution and By-Laws. It consists of the following: Dr. W. Blair Stewart, of Atlantic City; Dr. F. G. Scammell, of Trenton; Dr. A. F. McBride, of Paterson; Dr. George H. Lathrope, of Morris County; Dr. C. M. Trippe, of Monmouth County; Dr. Morrison, of Essex; and myself, of Hudson; and ex-officio, the President of the Society, who has at all times given the committee his most cordial support.

A work of this character would be impos-

sible for any one man to carry on and I want to emphasize that this is the work of the entire committee. Every man on the committee has contributed to this work and there has been a most cordial spirit animating this committee. There have been different points of view and yet every man on the committee was open to conviction and hence we are able to bring in a report to which we all subscribe.

In our work, we have been given some very excellent assistance from members of the Society not members of the committee. I should like to mention a few of these in particular. Essex County has had for the past 2 years a committee working on their own constitution and by-laws. That committee, and I might say the whole society, has shown a very lively interest in the progress of this draft, and we are indebted to the members of this county society, Drs. Kraker, Barkhorn, Stahl and Pinneo, for the assistance they have rendered, and to another member of Essex who made a very valuable suggestion with regard to participation of the Fellows and Board of Trustees, Dr. Echikson.

Dr. Haskins, of Hudson County, gave a great deal of assistance, particularly last year, in the drafting of the Constitution. Dr. Kelley, Secretary of the State Board of Medical Examiners, has been keenly interested in this. Dr. Marsh, the Treasurer, has communicated with the committee on 2 or 3 points and made valuable suggestions. Dr. North was kind enough to come to our last meeting and help to clarify a few points on the Committee on Finance. Dr. Marvel, of Atlantic City, has given a great deal of valuable aid and assistance. He has been to 2 or 3 of the meetings. We have had considerable communication with him and his suggestions and criticisms have been of great help. I must not close without acknowledging the appreciation of the committee for the very cordial aid and support and assistance we received from the Executive Secretary and Editor, Dr. Reik, whose assistance has been cheerfully given, and everything that he has done in aiding us has been at all times accurate.

If there are any others that we have failed to mention, on behalf of the committee please accept our thanks now.

Before proceeding with the revision, I want to say to the members of the committee that I thoroughly appreciate the honor of having been Chairman of a committee composed of the caliber of men that have made up this committee. Their cordial coöperation and their willingness to overlook some of my own shortcomings have been very much appreciated and working with them has been a genuine pleasure.

In proceeding to the consideration of the draft of the Constitution, I hardly think it necessary to say that we had the first reading of this draft last year, and that with this reading today the Constitution will be adopted. Any changes that are vital, of course, would mean that this Constitution would have to lay over another year.

I had arranged with Dr. Connolly to move the adoption of these various articles as they come along and with Dr. Costello to second them. I don't know that Dr. Connolly is here but I will ask Dr. Costello to do that until Dr. Connolly comes. We made this arrangement for this reason: We feel it will conserve time and also avoid confusion, particularly on the part of the stenographer, if just one man is making the motion to adopt and another seconds it. Of course, there will be full opportunity after the motion is made for any ideas or amendments that the delegates wish to offer.

So, the proposed revision of the Constitution will start with reading Article I.

Dr. Quigley read Article I.

Dr. W. J. Costello: I move the adoption of Article I.

The motion was seconded by Dr. English and carried.

Dr. Quigley: Article II is as follows. (Reading.)

Dr. Costello: I move the adoption of Article II.

The motion was seconded and carried.

Dr. Quigley: (read Article III.)

Dr. Costello: I move the adoption of Article III.

The motion was seconded.

Dr. B. S. Pollak: Do all county societies hold their charters from this organization now?

President Mulford: Yes, they do.

The question was put and the motion adopting Article III carried.

Dr. Quigley: (Read Section I, Article IV.)

Dr. Costello: I move the adoption of Section 1, Article IV.

The motion was seconded and carried.

Dr. Quigley: (Read Section 2, Article IV.)

Dr. Costello: I move the adoption of Section 2, Article IV.

The motion was seconded and carried.

Dr. Quigley: (Read Section 3a, Article IV.) I think it may be well as the Section is rather long that these subsections be adopted.

Dr. Costello: I move the adoption of Section 3a, Article IV.

The motion was seconded and carried.

Dr. Quigley: I will read the rest of the subsections of this Section of Article IV. (Read Section 3b, c, d, e, and f.)

Dr. Costello: I move the adoption of subsections 3b, c, d, e, and f, Article IV.

The motion was seconded.

Dr. N. L. Wilson: What is going to happen if a member of a county society dies the day before its meeting? You cannot at that meeting, according to this, elect a successor to him because you would have to wait until after the acknowledgment of receipt of such notice.

Dr. Quigley: I don't know why, in an emergency like that, you couldn't have telephonic or telegraphic communication.

Dr. Wilson: It says acknowledgment in writing.

Secretary Morrison: We cannot make provisions in this Constitution against the will of God, to begin with. In case the delegate dies, there is an alternate to fill his place.

Dr. Quigley: You have an alternate for each delegate so elected. Does that answer your question?

Dr. Wilson: Yes.

President Mulford: Are there any further remarks?

Dr. Quigley: Does Hudson County wish to make any addition or amendment?

Dr. Costello: There is one other thing. If I understand it right, in Section d, in the event that a component society becomes delinquent, I can understand some conditions might come up if a man wants to retain his membership in the State Society, he is out of it unless that society as a whole comes back into the State Society.

President Mulford: That will be taken care of in another section, if you will just wait.

The question was put and the motion carried.

Dr. Quigley: (Read Section 4, Article IV.)

Dr. Costello: I move the adoption of Section 4, Article IV.

The motion was seconded and carried.

Dr. Quigley: (Read Section 5, Article IV.)

Dr. Costello: I move the adoption of Section 5, Article IV.

The motion was seconded and carried.

Dr. Quigley: (Read Section 6, Article IV.)

Dr. Costello: I move the adoption of Section 6, Article IV.

The motion was seconded and carried.

Dr. Costello: I move that Article IV in its entirety be adopted.

The motion was seconded and carried.

Dr. Quigley: (Read Article V.)

Dr. Costello: I move the adoption of Article V.

The motion was seconded and carried.

Dr. Quigley: (Read Article VI.)

Dr. Costello: I move the adoption of Article VI.

The motion was seconded and carried.

Dr. Quigley: (Read Article VII.)

Dr. Costello: I move the adoption of Article VII.

The motion was seconded and carried.

Dr. Quigley: (Read Article VIII.)

Dr. Costello: I move the adoption of Article VIII.

The motion was seconded by Dr. M. W. Newcombe and carried.

Dr. Quigley: (Read Article IX.)

Dr. Costello: I move the adoption of Article IX, Sections 1 and 2.

The motion was seconded by Dr. Newcombe and carried.

Dr. Quigley: (Read Article X.)

Dr. Costello: I move the adoption of Article X, Sections 1 and 2.

The motion was seconded by Dr. Newcombe and carried.

Dr. Quigley: (Read Article XI.)

Dr. Costello: I move the adoption of Article XI.

The motion was seconded by Dr. Newcombe and carried.

Dr. Quigley: (Read Article XII.)

Dr. Costello: I move the adoption of Article XII.

The motion was seconded by Dr. Newcombe and carried.

Dr. Quigley: Dr. Connolly has a motion to make.

Dr. Connolly: Mr. Chairman, I move the adoption of this Constitution as read, Section 3 of Article IV to take effect immediately after adjournment of this annual meeting, and the Constitution in its entirety to take effect at the first session of the next annual meeting of this Society.

The motion was seconded.

Dr. Quigley: I will explain that in connection with Section 3, Article IV, to make this Constitution effective at the next annual meeting, it will be necessary to elect the delegates in accordance with this Constitution which we have now adopted. Therefore, by making Section 3 of Article IV effective immediately after adjournment of this annual meeting it will mean that each component society at the next annual meeting will elect its delegates in accordance with this Constitution.

Dr. George H. Lathrope: I would like to make a motion to amend that so that the en-

tire Constitution be operative at the close of this meeting because of the appointment of committees and other things which have to be done this summer and fall in accordance with these By-Laws. That is really in reference more to the By-Laws than it is to anything in the Constitution.

Secretary Morrison: The Constitution has to be put in force before the By-Laws can be.

Dr. Quigley: If that goes into effect immediately, I wonder, in connection with the appointment you make—some appointments are not made until some little time after the meeting is adjourned—if that might cause confusion. This way you would operate under the old Constitution until next year except that the delegates would be elected in accordance with the new Constitution and then your Constitution would become operative in its entirety.

Dr. Lathrope: I withdraw that amendment.

Dr. E. J. Marsh: Can I ask for a point of information: Do I understand from this time forth there will be no First, Second and Third Vice-Presidents but simply three Vice-Presidents all of equal grade?

Dr. Quigley: Answering Dr. Marsh's question, Dr. Marsh in a communication to me made that very point and I looked up a number of the other Constitutions and By-Laws and in none do I see any reference to First, Second and Third Vice-Presidents. We elect a Vice-President at different times and we speak of them as First, Second and Third Vice-Presidents, and we refer to them in the Constitution and By-Laws as the ranking Vice-Presidents; in other words, the one who is longest in service. I don't know of any place in the old By-Laws where you spoke of the First, Second and Third Vice-Presidents, and yet we always had it and there seemed to be no confusion. In no other By-Laws is any reference made to First, Second and Third Vice-Presidents.

President Mulford: It seems to me, to answer Dr. Marsh, that the Vice-President longest elected would naturally be the one to succeed for President.

Dr. Marsh: You might happen to have two elected at the same time.

President Mulford: Are there any further remarks on this motion of Dr. Connolly's?

Dr. Alfred Stahl: Just as a matter of information, when will the By-Laws become effective?

Dr. Quigley: My thought with regard to that is that they shall become effective at the first session of the next annual meeting.

Dr. Stahl: In other words, that the incoming President will operate according to the old Constitution.

Dr. Quigley: Otherwise it would result in confusion. The committee in talking this over, felt that the best way to do would be to have the By-Laws become effective at the first session of the next annual meeting.

President Mulford: In having this Section 3 become effective, it would simply operate to have the component societies elect their delegates at their next annual meeting; otherwise, the old régime will hold forth in the next session. Are there any further remarks?

The question was put and the motion carried.

Dr. Quigley: In considering the By-Laws, preceding and accompanying this draft we went to considerable research, investigating the By-Laws of various other medical societies, and we abstracted some ideas and some material from some of them and retained some of our own old By-Laws.

It will be necessary, according to our present By-Laws, to have 2 readings of the proposed draft, and they also must lie on the table for one day. So the committee proposes today to have its first reading and have it adopted on first reading and have it lie over until tomorrow or Saturday morning, and at that time, if there is no objection, they can be read through by title and adopted.

Dr. Quigley: (Read from printed copy, in hands of all delegates, Chapter 1, Section 1 of the By-Laws.)

Dr. Costello: I move the adoption of Section 1 of Chapter 1.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter 1, Section 2a, b, c, and d.)

Dr. Costello: I move the adoption of Section 2a, b, c, and d.

The motion was seconded.

Dr. B. S. Pollak: Section d of this Chapter says that on the first day of February in each year this information in this list shall be furnished to the Secretary of the organization. Take, for instance, the example of Hudson County that has its annual meeting in May. How can we in February send such a list?

President Mulford: Our thought was that perhaps you could change the annual meetings of the component societies.

Dr. Pollak: Then we would have to change the Constitution in the county society.

Secretary Morrison: The constitutions in the county societies have to be revised to conform to this. In any event the official list is published as of February first.

Member: Did I understand the Chairman

to say this is the first reading of the By-Laws?

President Mulford: Yes.

Member: Do we have to vote on it a second time?

President Mulford: Yes.

The question was put and the motion carried.

Dr. Quigley: (Read Chapter 1, Section 3.)

Dr. Costello: I move the adoption of Section 3.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter 1, Section 4.)

Dr. Costello: I move the adoption of Section 4.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter I, Section 5a and b.)

Dr. Costello: I move the adoption of Section 5a and b.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter I, Section 6.)

Dr. Costello: I move the adoption of Section 6.

The motion was seconded.

Dr. Davis: Does that mean on notification to the Secretary, each delegate shall bring credentials with him, or when the Secretary is notified, does that cover that point?

Dr. Quigley: It is taken care of right here. Of course, he receives a card as he does now and he presents it.

The question was put and the motion was carried.

Dr. Costello: I move the adoption of Chapter I in its entirety.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter II, Sections 1 and 2.)

Dr. Costello: I move the adoption of Chapter II, Sections 1 and 2.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter III, Section 1.)

Dr. Costello: I move the adoption of Section 1.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter III, Section 2.)

Dr. Costello: I move the adoption of Section 2.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter III, Sections 3, 4, and 5.)

Dr. Costello: I move the adoption of Sections 3, 4, and 5.

The motion was seconded.

Dr. N. L. Wilson: In Section 4 it states that invited orators may occupy more than 20 minutes, but that no member shall speak longer than 5 minutes. It seems to me to invite somebody to open the discussion on that particular paper, he should have 10 minutes. He is not a member.

Dr. Quigley: It exempts an invited orator. This applies to members. It says, "and no member shall speak longer than 5 minutes".

Dr. B. S. Pollak: I think Dr. Wilson's point is well taken because in our present Constitution we had some provision of this sort. For instance, tomorrow a prominent urologist is coming from Philadelphia and he has asked someone to open the discussion of his oration or his paper. Surely the courtesy is due to the invited guest to permit that party or member of our society who has been invited to discuss the paper to take at least 10 minutes.

President Mulford: It says "except by the agreement of the Society". Of course, the Society can change that length of time.

Dr. Quigley: May I say this: This does not refer to invited orators. It refers entirely to the members.

President Mulford: That is the point Dr. Wilson raises, if an invited orator invites a member of our Society to discuss his paper he is limited to 5 minutes.

Dr. Wilson: I think that is covered by the last part of the paragraph.

The question was put and the motion carried.

Dr. Costello: I move the adoption of Chapter III in its entirety.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter IV.)

Dr. Costello: I move the adoption of Chapter IV in its entirety.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter V, Section I.)

Dr. Costello: I move the adoption of Section 1 of Chapter V.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter V, Section 2a.)

Dr. Costello: I move the adoption of Section 2a.

The motion was seconded.

Dr. N. L. Wilson: That is a very long section and I should like to ask why he puts in there "Fellows being called last".

Dr. Quigley: The committee discussed that very proposition. Of course, you have got to put the Fellows some place and we felt the nominations were primarily the function of the component societies and they are not being discriminated against any more than those

who are low down in the alphabetic list of the counties.

Dr. Wilson: Do I understand then that there is some fear that the Fellow might make a nomination first?

Dr. Quigley: I don't think so. I think one of the reasons was we felt that it was primarily the function of the county society and they should be heard first.

Dr. E. J. Marsh: Might I say that a representative of the Fellows is to be Chairman and in calling a roll it is a very common thing to call the Chairman last.

President Mulford: He is going to preside anyway.

Member: This seems to give a Fellow each year a chance to nominate a candidate while when it is done alphabetically, the next county has that privilege.

President Mulford: It has always been done that way.

Secretary Morrison: I don't think that if Atlantic County has a delegate elected President this year, Atlantic County is going to nominate someone next year. That is an unwritten law in the State Society, that it passes along.

Dr. Quigley: I might say, Mr. President, that this procedure is taken largely from the procedure of the large political parties in making nominations. It is always done in alphabetic order. Of course, not infrequently the various states have no candidate; they simply waive that privilege to another. If Atlantic County has no nomination, it can waive that privilege to any other county.

The question was put and the motion carried.

Dr. Quigley: (Read Chapter V, Section 2b.)

Dr. Costello: I move the adoption of Section 2b.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter V, Section 2c, d, e, f.)

Dr. Costello: I move the adoption of Section 2c, d, e, and f.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter V, Section 3, 4, 5, and 6.)

Dr. Costello: I move the adoption of Sections 3, 4, 5, and 6.

The motion was seconded and carried.

Dr. Costello: I move that Chapter V be adopted in its entirety.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VI, Section 1.)

Dr. Costello: I move the adoption of Chapter VI, Section 1.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VI, Section 2.)

Dr. Costello: I move the adoption of Section 2.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VI, Section 3.)

Dr. Costello: I move the adoption of Section 3.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VI, Section 4.)

Dr. Costello: I move the adoption of Section 4.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VI, Section 5a, b, c, d, e, and f.)

Dr. Costello: I move the adoption of Section 5.

The motion was seconded and carried.

Dr. Costello: I move the adoption of Chapter VI in its entirety.

The motion was seconded and carried.

Dr. Quigley: (Read Section 1 of Chapter VII.)

Dr. Costello: I move the adoption of Section 1 of Chapter VII.

The motion was seconded and carried.

Dr. Quigley: (Read Sections 2 and 3 of Chapter VII.)

Dr. Costello: I move the adoption of Sections 2 and 3.

The motion was seconded and carried.

Dr. Quigley: (Read Section 4 of Chapter VII.)

Dr. Costello: I move the adoption of Section 4.

The motion was seconded.

Dr. E. J. Marsh: I move to amend that by substituting the following for this Section:

"Section 4. All questions of an ethical nature coming before the Society shall be referred to the Judicial Council without discussion. It shall consider any questions of discipline or conduct of a member on appeal from the county society to which such member belongs and all charges by a member of one county society against a member of another county society. Such questions include any point involving the rights of members in relation to each other, to the county societies or to this Society."

The reason for that, Mr. President is to preserve the rights of initial jurisdiction—jurisdiction first of the members of the county society to that society. I understand the committee feels that is included. In Passaic County the Board of Censors have juris-

diction such as is provided here over members. I can't speak for other counties but I believe some others have the same provision. This, it seems to me, leaves it a little uncertain. I think it desirable that the original jurisdiction over members should be preserved to their own county, leaving the right of appeal to the Judicial Council. So I move the substitution of this for the article as read.

Dr. Quigley: May I say a word on that point. Certainly the committee would be agreeable to any proposal that would clear up or make clear any portion of this By-Law that seems to be a little confused. But after reading Section 5 (reading Section 5) if you will turn to Chapter X, Section 4, which reads (reading Section 4), it seems clear that the Judicial Council shall not hear any appeals of any character except where a member has been excluded from membership.

President Mulford: Will you accept that?

Dr. Marsh: It may be as Dr. Quigley says, and he has studied the matter, but it seems to me this makes it more specific as the question might come up of somebody's taking a motion directly before the Judicial Council instead of bringing it to his own County Society Board of Censors.

Dr. Quigley: I don't think there is any objection to it at all.

President Mulford: It has been regularly moved and seconded by Dr. Marsh as an amendment to that section the adoption of the section as he has produced it.

Is there any question on the amendment?

Dr. Wilson: It isn't very clear as to just what he did say.

Dr. Marsh re-read his amendment.

President Mulford: Gentlemen, you have heard the reading of this resolution again.

Secretary Morrison: I still don't see the necessity for altering our printed form. It seems to me every provision Dr. Marsh asks for is covered in this in much more compact form. Any aggrieved member of a component society, no matter what his complaint, has a right to appeal to the Judicial Council. That leaves the conduct of the member entirely in the hands of the component society at first. If the component society takes action against that member, this gives the right to appeal before the Judicial Council.

Then the last portion of that Section reads: "It shall consider all questions involving the rights of members, whether in relation to each other, to component societies, or to this Society."

Dr. W. Blair Stewart: Our committee in going over this Constitution and By-Laws endeavored to get rid of as much verbiage as we possibly could and I think this really covers everything that is necessary regarding the protection of any individual member of a county society or of the State Society.

I don't like the substituted amendment for 2 reasons: First of all, there is too much verbiage in it. Second, the word "society" appears 5 or 6 times. I think if we adopt it, it should be amended so as to get rid of all of the superfluous words. Personally, I feel that this that we have adopted in the committee is as near right as we can get it. We are not opposed to amending any portion at all that does not protect the interest of any individual member.

I may say—probably Dr. Quigley did say this before—that this entire Constitution and By-Laws was submitted to grammarians to go over and try as far as possible to eliminate all superfluous words and convert it into as good English as we could get.

President Mulford: The question is on the amendment, Gentlemen.

The question was put and the motion lost.

President Mulford: The "No's" are unanimous.

We will vote on Chapter VII, Section 4, as printed. Its adoption has been regularly moved and seconded.

The question was put and the motion carried.

Dr. Quigley: (Read Chapter VII, Section 5a, b, c, and d.)

Dr. Costello: I move the adoption of Section 5a, b, c, and d.

The motion was seconded.

Dr. Cummings: I don't quite like the idea of the fourth line of Section d, which gives the Judicial Council a right to elect members for us. It says it may reverse our action. In case they reverse action, that will make this man a member, will it not? I don't like that.

Dr. D. A. Kraker: On Section a: in Essex we think this Council or the State Society should not have any right to dictate to the county society; that they have no real right to overrule. We object to the idea of the State Society through its Judicial Council definitely designating or insisting upon the county society's electing men who are applicants and whom they or their Council reject. We don't think they should have a right of appeal. We don't think it is the province of the State Society to determine the quality of the member in the county society.

President Mulford: I think Dr. Morrison can answer that.

Secretary Morrison: The charter does not give to the component societies any voice in

the construction or working of this House of Delegates. The charter does not give to the component societies the right to impose upon the Medical Society a member to whom the House of Delegates is opposed. Further on in these By-Laws the county societies are requested to write to the Biographic Department of the American Medical Association whenever application is made for membership and see if that body has any record against this man in any other state so he will come to this Society with a clean record. Then this New Jersey State Medical Society has a right to say whom it shall receive. If the county society wishes to appeal to the House of Delegates over the Judicial Council, it can do so.

Dr. Kraker: I would like to have Dr. Morrison clear for me where the state society has a right to definitely designate men that the county society rejects.

Secretary Morrison: We have the corporate right to select our own members.

Dr. Kraker: His application is made primarily to the county society. Under those circumstances this society in these particular By-Laws designates to the component society certain definite privileges. In this particular paragraph they take them away. It doesn't presume that those members shall have a right to elect members. If they have a right, they certainly have a right to act upon applications without appeal because these members are not members; they certainly are less members of the component society.

Dr. Quigley: I might say that this section dealing with the operation of the Judicial Council was taken in large measure from the Constitution and By-Laws of the New York State Medical Society. This is the identical procedure so far as concerns this particular point.

The justice of this right is simply this: Except in rare instances, certainly the Judicial Council would never have heard any such appeal from a member because he was refused admission to his county society, but I understand that there is a county society in this state today that has refused several men for no good reason except internal politics and they are unable to get into the organization of the American Medical Association. I have been told that on reliable authority. I don't believe that probably once in 25 years would you have any reason to take this matter up but if a man has been kept out of organized medicine simply because of pique or internal politics in the county society, certainly he ought to have some opportunity of appeal. It doesn't necessarily mean appeal to the State Society. Certainly the county society is going to sustain the Judicial Committee.

Secretary Morrison: There is a county society in this state to whom a doctor made application for membership. He was rejected. He was rejected on 3 different occasions. Then the by-laws of this county society were changed providing that a man must have two-thirds vote to be elected a member. This party, who is a personal friend of the late President of the American Medical Association, wrote to the American Medical Association asking that body to intervene and it was referred to Secretary West and Secretary West sent it back to me. We referred the matter to the Judicial Council. They took it up and our President was present at the county society meeting when the last action was taken. By unanimous vote that county society rejected this man's application. Then he went over their heads and came back to the Judicial Committee and through the Judicial Committee and the Board of Trustees, and the Board of Trustees refused to take any action over the county society.

Dr. P. Marvel: In line with what Dr. Quigley and Dr. Morrison have said, even after a member of a county society has exhausted his privilege in the county and in the State Society, he still has the privilege of taking it up to the Council of the American Medical Association. They are all related societies.

The question was put and the motion adopting Chapter VII, Section 5, was carried.

Dr. Quigley: (Read Chapter VII, Section 6.)

Dr. Costello: I move the adoption of Section 6.

The motion was seconded and carried.

Dr. Costello: I move the adoption of Chapter VII in its entirety.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Sections 1 and 2.)

Dr. Costello: I move the adoption of Sections 1 and 2 of Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Section 3.)

Dr. Costello: I move the adoption of Section 3.

The motion was seconded and carried.

President Mulford: It is 4 o'clock and that is the time set for the meeting of the Nominating Committee.

There was some discussion at this point and the Reporter was instructed to omit it from the record.

Dr. Quigley: (Read Chapter VIII, Sections 4 and 5.)

Dr. R. N. Connolly: I move the adoption of Sections 4 and 5 of Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Section 6.)

Dr. Connolly: I move the adoption of Section 6, Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Section 7.)

Dr. Connolly: I move the adoption of Section 7, Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Section 8.)

Dr. Connolly: I move the adoption of Section 8, Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Section 9.)

Dr. Connolly: I move the adoption of Section 9, Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: In the next Section the committee has some slight changes. If you will take your pencil, I will tell you where they are and you might write in what is to be added in the margin.

In the fifth line of Section 10, after the word "ex-officio", place a period and strike out the word "and", starting the next sentence with a capital. Then on the seventh line after the words "one member", place a comma and add at this point: "and candidates for such appointment may be suggested to the President by each component society".

Dr. Quigley: (Read Section 10, Chapter VIII, with these changes.)

Dr. Connolly: I move the adoption of Section 10, Chapter VIII, as read.

The motion was seconded.

Dr. Wilson: May I ask, does that really mean what it says, "the Committee on Finance and the Board of Trustees", or should it be, "the Committee on Finance or the Board of Trustees"?

Dr. Quigley: I think that is correct. I think that is an oversight. I will ask Dr. Lathrope. Dr. Lathrope is responsible for the drafting of that.

Dr. Lathrope: I think that is covered under the question of finance, that extra expenditures have to be viséd by both of those bodies. I think that is correct as it stands.

The question was put and the motion carried.

Dr. Quigley: (Read Chapter VIII, Section 11.)

Dr. Connolly: I move the adoption of Section 11, Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Section 12.)

Dr. Connolly: I move the adoption of Section 12 of Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Section 13.)

Dr. Connolly: I move the adoption of Section 13 with sub-sections a, b, c, and d, of Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Section 14, Chapter VIII.)

Dr. Connolly: I move the adoption of Section 14 of Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Section 15.)

Dr. Connolly: I move the adoption of Section 15, Chapter VIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter VIII, Section 16.)

Dr. Connolly: I move the adoption of Section 16, Chapter VIII.

The motion was seconded and carried.

Dr. Connolly: I would like to move the adoption of Chapter VIII in its entirety.

The motion was seconded and carried.

Dr. Quigley: (Read Section 1a and b of Chapter IX.)

Dr. Connolly: I move the adoption of Section 1 with sub-sections a and b of Chapter IX.

The motion was seconded and carried.

Dr. Quigley: (Read Section 2a, b, and c of Chapter IX.)

Dr. Connolly: I move the adoption of Section 2, Chapter IX.

The motion was seconded and carried.

Dr. Quigley: (Read Sections 3 and 4 of Chapter IX.)

Dr. Connolly: I move the adoption of Sections 3 and 4 of Chapter IX.

The motion was seconded and carried.

Dr. Connolly: I would like to move the adoption of Chapter IX in its entirety.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter X.)

Dr. Connolly: I move the adoption of Chapter X in its entirety.

The motion was seconded.

Dr. George H. Lathrope: Section 3a of this Chapter says, "Each component society shall judge of the qualifications of its own members but", and so on. In view of the

discussion a little earlier this afternoon on a previous question, I move you that following the word "members", there be inserted these words, "subject to the right of approval of this Society", so that it shall read, "Each component society shall judge of the qualifications of its own members subject to the right of approval of this Society, but, as such societies", and so on.

Dr. Quigley: I will accept that.

The amendment was seconded.

President Mulford: This amendment has been regularly moved and seconded.

Dr. Stahl: How would that be approved? What is going to be the procedure for approval? In other words, will every man who makes an application have to be approved?

Dr. Lathrope: "Subject to the right of approval."

Dr. Stahl: It seems to me that Dr. Stewart said sometime ago that he got this thing in pretty good shape and it seems to me the thing is pretty well covered in the previous sections.

Dr. B. S. Pollak: It might be stated that Dr. Lathrope is a member of that committee and probably has considered this matter.

President Mulford: Are there any further remarks on the amendment?

The question was put.

President Mulford: The decision is somewhat in doubt. All in favor please stand. (22 arose.)

President Mulford: All opposed please stand. (12 arose.)

President Mulford: The "aye's" have it.

Now we will vote on the Chapter as a whole, on the original motion for the adoption of Chapter X with the amendment.

The question was put and the motion carried.

Dr. Quigley: (Read Chapter XI.)

Dr. Connolly: I move the adoption of Chapter XI.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter XII.)

Dr. Connolly: I move the adoption of Chapter XII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter XIII.)

Dr. Connolly: I move the adoption of Chapter XIII.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter XIV.)

Dr. Connolly: I move the adoption of Chapter XIV in its entirety.

The motion was seconded and carried.

Dr. Quigley: (Read Chapter XV.)

Dr. Connolly: I move the adoption of Chapter XV in its entirety.

The motion was seconded and carried.

Dr. Connolly: I move the adoption of these By-Laws as read and amended in their entirety to take effect at the first session of the next annual meeting of this Society, for the first reading.

The motion was seconded and carried.

Dr. Stahl: For a point of information and I think for the information of all of us, it might be a good thing to have somebody read Section 3a of Chapter X as now amended.

Dr. Quigley: Did I understand the motion was just to adopt these By-Laws?

Dr. Connolly: The By-Laws only.

Dr. Lathrope: Mr. President, with your permission, I would like to read Section 3a of Chapter X: "Each component society shall judge of the qualifications of its own members subject to the right of approval of this society, but, as such societies are the only portals to this society and to the American Medical Association, it is recommended that every reputable and legally registered physician shall be deemed eligible to membership in a component society; provided, an active member of one component society shall not be eligible to active membership in any other component society at the same time."

Dr. Stahl: I still feel we ought to have some information as to how that approval is to be made—"subject to the right of approval of this Society". Might it not be better to say, "subject to the rejection of this society"?

Dr. Lathrope: "Subject to the right of approval" would only bring it up in cases of appeal, just the case that was being spoken of earlier in the afternoon.

Dr. Stahl: We have here, "Each component society shall judge of the qualifications of its own members but, as such societies are the only portals to this society and to the American Medical Association, it is recommended that every reputable and legally registered physician shall be deemed eligible", and so on. I still feel that the other is unnecessary.

President Mulford: I feel that will work out all right, Dr. Stahl.

Member: I think I know what Dr. Stahl means. It seems to me the wording should be different. I think it should be subject to the right of disapproval because disapproval may be called for in some cases—the right of disapproval: it means over-riding.

Dr. Pollak: If this subject is disposed of, I would like to call your attention to a point of information, that inasmuch as we had no roll call of the men assembled, the roll should be called of these men when the Constitution was changed and the By-Laws were changed.

We simply voted and we had no official record of the men who were voting because for all we know the men who were here were not delegates. You asked me to count and I counted 81 but at the same time there was no official record. I simply rise for a point of information as to whether or not that ought to be done.

President Mulford: I will answer that question. I looked at each one of the men present and they all had official badges on.

Dr. Pollak: It still may be necessary, sir.

Secretary Morrison: I think the point is well taken for this reason: If we come down to the legality of it the only delegates legally entitled to vote on the adoption of the Constitution and By-Laws are the annual delegates, the officers and the trustees. As a matter of legal interpretation, the permanent delegates around here have no vote at all. The Council told us when the matter came up for vote that if the vote was general, the permanent delegates, the annual delegates, the officers and all without specification, then it was presumed it was carried and we had better let it go at that.

Dr. Marvel: I merely want to rise to call attention to the fact that this committee has done a splendid piece of work and I feel that the Society owes them a vote of thanks for the work presented. I wish also to move you that this committee be continued for one year as there may be questions coming up that will require the knowledge that they have already gotten in their study and survey of the matter before you. I therefore move you that this committee be continued.

The motion was seconded by Dr. Schauffler and carried. (The audience arose.)

Dr. Quigley: I want to assure you that we appreciate this mark of approval from this body.

President Mulford: We will now proceed with the Report on Health, Accident, Life and Automobile Insurance, Dr. Pinneo, Chairman.

Report of Committee on Health, Accident and Automobile Insurance

Your committee has pleasure in submitting the following report of our Health and Accident Policy and the policies on Automobiles (Liability and property damage and fire, theft, transportation and collision.)

Beginning with the latest item we have the following interpretation by the Company of the Health and Accident Policy, requested because of the Cleveland Hospital disaster from gases and fire, and the reassurance we thought it would give you if anyone has doubt that the policy would cover such disaster, if it ever occurred. The following is the authoritative statement of the Commonwealth Company:—

"At the time this Group Policy was issued by the Commonwealth Casualty Company we did not have in mind excluding indemnity under this policy for injuries sustained by a physician under the conditions such as existed in the Cleveland Hospital disaster and I feel free to say on behalf of the Company that should a like disaster occur the holder of a certificate under the Group Policy issued the Medical Society of New Jersey would be fully covered under said certificate.

Signed A. McNiel,
Claims Manager, Accident and Health Dept."

We again remind you that this Health and Accident Policy is *not* one of Insurance Companies sold by them for their own profit, but is the result of your own committee's patient pursuit for a first class company, which would underwrite provisions which doctors used covering a wide range of contingencies in illness and accidents, and at the very lowest possible cost. The success we feel attained is ample reward for prolonged negotiations where at first it looked like failure for lack of 75% of members applying, but which requirement is now abolished.

The year has shown encouraging increase in the favor with which you have received both kinds of insurance. The statistical summary follows:

HEALTH AND ACCIDENT

Number of members insured by the Health and Accident Policy	345
Number of members having claims paid	58

These claims were for amounts of from $25 to $775 each. Total, $8397.

AUTOMOBILE

Number of members having Automobile Policies in force	84
Number of claims paid	25

These claims were Fire, Theft, Collision, Liability and Property Damage in amounts of from $7.60 to $1225 each. Total $4046.60. Dividends repaid to policyholders since December 31, on the Liability Policy (15% on their premiums). Total $572.59.

The gratification of members in increasing numbers, has been expressed in letters of thanks, and this is encouraging to a committee which knows the advantages achieved by these negotiations. The committee only wishes more of our members took advantage of them.

The committee has incurred no expense to the society as Secretary Morrison a year ago volunteered to supply stationery from his office as to other committees and the Insurance Agent has borne all services not given freely by this committee.

Respectfuly submitted,
The Committee,
Frank W. Pinneo, Chairman,
J. Finley Bell,
Austin H. Coleman,
James S. Green,
Ralph K. Hollinshed,
Fred J. Quigley,
Clarence W. Way,
Ephraim R. Mulford, Pres.
J. Bennett Morrison, Rec. Sec.
Elias J. Marsh, Treas.

Member: I move this report be accepted with thanks.

The motion was seconded and carried.

President Mulford: We will now listen to the Report of the Delegates to the American Medical Association.

Dr. W. Blair Stewart: We made our report last year. Ordinarily speaking, the American Medical Association meets before our meeting and inasmuch as it meets in July this year, we will not have any report until the next meeting. We were 100% represented at the last meeting.

President Mulford: Three times this spring I have submitted to Governor Larson the names of 3 candidates to fill the vacancy on the State Board of Medical Examiners. Mr. Hanson, his secretary, insists that the House of Delegates shall act on this matter before they will make the appointment. The names of the 3 men I have submitted are: Leo Becker, of Passaic, who is the member whose term expires; the next nominee was Dr. Richard D. Anderson, of Burlington; and the third nominee was Dr. W. E. Darnall, of Atlantic City. Mr. Hanson, the Secretary to the Governor, wrote to me quoting the law, and suggested that I ask the House of Delegates, if it meets with their approval, to substantiate the names I have submitted.

I will be glad to entertain such a motion.

Dr. Stewart: I so move.

The motion was seconded and carried.

The meeting adjourned at 4:50 p. m.

Friday Afternoon Session

June 14, 1929

The meeting was called to order by President Mulford at 4 p. m.

At the request of the President, Dr. Elias J. Marsh exhibited a book showing the charter of the Medical Society of New Jersey as published in 1830 along with the revised Constitution and By-Laws as of that period. At the same time, Dr. Marsh exhibited a certificate conferred upon his grandfather by the State Society, giving him the right to practice medicine in this state; the certificate being of issue of 1827. Dr. Marsh presented these documents to the State Society.

Dr. Quigley: Mr. President, I move that the Society extend a special vote of thanks to Dr. Marsh for the gift of these very interesting documents.

The motion was seconded and adopted.

Dr. Hunter: There are in my possession a few documents of value belonging to this Society and I think we ought to take a box in some safe deposit vault for the preservation of such historic papers as Dr. Marsh has given us and important documents now being held by officers of the Society.

A motion to this effect was unanimously adopted.

Dr. Morrison: I would like to ask Dr. Schauffler and Dr. Hunter, as they have been associated with the society work for so many years, if either of them chances to know what became of the original charter of this organization.

Dr. Schauffler: I have never seen it. We heard that it had been in the possession of Dr. Chandler at one time and had been passed on to Dr. English, but you will recall that just a few years ago a committee from the Board of Trustees visited the home of the late Dr. English and joined the family in what proved to be a fruitless search for this and other important papers.

Dr. Marsh: The official minutes of the original meeting are in the library of the Historical Society of Newark.

Dr. Hunter: Might we not appoint a committee to secure a copy of those minutes and any other available documents?

Dr. Marsh: I think the Historical Society might give you the original if you desire to have it.

Dr. Hunter: I move the appointment of a special committee to seek such documents and to arrange for their preservation.

This motion was seconded and adopted.

President Mulford: We will now proceed to the final reading of and acting upon the By-Laws.

Dr. Quigley: As I proceed to read these By-Laws, it will be well if someone shall move the adoption of each chapter by title as we proceed.

Dr. Schauffler: I move that we follow that plan.

The motion was seconded and carried.

Dr. Quigley proceeded to read the By-Laws, chapter by chapter, and at the conclusion of the reading of each section of each chapter, and each chapter in full, a vote of adoption was taken upon a motion duly made and seconded by one or other of the following delegates: Schauffler, Newman, Stewart, Hunter.

Dr. Hunter: Mr. President, the By-Laws having been approved by unanimous vote, chapter by chapter, I now move the adoption of the By-Laws as a whole and that they shall take effect at the next annual meeting.

This motion was seconded and unanimously adopted.

Dr. Hunter: I now move that the Recording Secretary be authorized to have printed 3500 copies of the new Constitution and By-

Laws and that they be distributed to members of the Medical Society of New Jersey in advance of the meetings to be held by various county medical societies in the month of October.

This motion was seconded and adopted.

President Mulford: We will now receive the report of the Business Committee.

Dr. W. Blair Stewart: Mr. President, 2 matters were referred to us for consideration: First, the report of the Editor and Executive Secretary; second, the report of the Judicial Council. For the Business Committee, I desire to present the following report:

Report of Business Committee

Considering the report presented by Dr. Reik:

Are you satisfied with the progress of the Journal? What changes do you desire?

The committee is of the opinion that our Journal ranks among the best of the state journals of the country and should be continued upon the same high plane as in the past, encouraging the Editor and Publication Committee to make such additions or improvements as seem advisable.

Shall we endeavor to make it an ideal state society journal, as described at the conference of officers of New York, Pennsylvania and New Jersey medical societies, even if cost be increased?

Make the Journal as nearly ideal as is possible, together with such desirable additions as the budget will justify.

Have you any suggestions to make regarding the Woman's Auxiliary?

This movement should receive the strongest endorsement of the Medical Society of New Jersey and each county society should be instructed to give every assistance and encouragement to the women in making their work effective, instructive and interesting.

Any suggestions regarding work of Field Secretary?

The excellent work done by our Field Secretary during the past years has been most effective and should be continued by the Society. Her activities should be governed by Dr. Reik and the Welfare Committee.

Shall we ask county societies to start broadcasting programs of their own? Shall we continue the State Society radio talks?

Each county society that can obtain the privilege of broadcasting a series of health talks over its nearest radio station should avail itself of such opportunity. Before initiating such broadcasting, its committee should obtain necessary information and instruction from the Executive Secretary of this Society. By all means we should continue our own radio talks and, so far as is possible, advise with our New Jersey State radio stations to the end that the public may be protected and no improper medical information disseminated by irregulars, patent medicine companies or improper cults.

Shall we continue or arrest newspaper dissemination of radio material?

The newspaper dissemination of radio talks should be left to the discretion of the Executive Secretary, with the suggestion that only talks of outstanding importance and interest should be so disseminated.

Will you indorse our recommendation of establishing a Public Relations Committee (under whatever name) for each county society, and urge such bodies to clean up newspaper advertising in their localities?

County societies, through their existing committees, should make every endeavor to advise with newspapers published in their respective counties to eliminate misleading and untruthful statements.

Is it advisable to have a special committee to study Assembly Bill 290?

The study and steering of all legislation belongs to the Welfare Committee that has its own legal counsellor and it is best to leave this question to that committee.

Is it desirable to have a "fact finding" investigation of alleged unprofessional conduct?

It does not seem advisable, to your committee, to have such special investigation by any special action on the part of the Society. The questions of fee-splitting, relationship between physicians, advertising, etc., should be carefully watched by each county society and if of sufficient importance referred to the Councillors of the State Society.

What shall be our attitude toward national legislation described: Sheppard-Towner law; Narcotic law; higher tariff on surgical instruments?

Inasmuch as the Welfare Committee and the state committees are opposed to all three forms of legislation, the Medical Society of New Jersey should go on record as opposed to these laws in their present form.

Considering the Report of the Judicial Council, we recommend approval of the suggestion that the Society repeal its act whereby medical defense is supplied to all members.

Respectfully submitted by Drs. Newman, Stewart and Nevins for the Business Committee.

Dr. Hunter: I move that we receive the report of the Business Committee and that the recommendations contained therein be accepted.

This motion was duly seconded and carried.

Dr. Newman: Mr. President, we may not be able to compel every member of the State Society to carry indemnity insurance but we can put an end to the former procedure whereby the Society to some extent insured its members against suits for malpractice, and I move that we now suspend that procedure in the nature of medical defense.

This motion was seconded and unanimously adopted.

President Mulford: We will now receive the report of the Board of Trustees.

Dr. Hunter:

Report of the Board of Trustees

June 14, 1929.

To the House of Delegates of the
Medical Society of New Jersey:

Gentlemen:

The Board of Trustees have held 2 sessions during this Annual Meeting at Atlantic City; the first on the evening of June 11; the second, for purposes of reorganization, as required by the Constitution and By-Laws, on the afternoon of June 13, 1929.

Very few matters of business came before the Board at those meetings: An appeal by a physician who claimed that he had been unjustly refused membership in one of the Component County Societies was referred to the Judicial Council for investigation.

Consideration was given to the increasing amount of work falling upon the Recording Secretary and the Executive Secretary, and a readjustment of their labors and salaries was made.

The Treasurer's report was submitted to an Auditing Committee and, upon report that it had been found correct (as published in the June Journal) it was unanimously approved.

In reorganization, Dr. Lucius F. Donohoe was elected Chairman of the Board; and Dr. James Hunter, Jr., was reëlected Secretary.

Respectfully submitted by,

James Hunter, Jr.,
Secretary.

President Mulford: Is the Chairman of the Finance Committee ready to report?

Dr. Garrett H. Miller: Mr. President, the Chairman of our committee has been called away but in his absence I desire to present the following report:

The Finance and Budget Committee recommend the following amended schedule of appropriations for the fiscal year of 1930, in place of the tentative schedule introduced at the first session. The amended schedule is in accord with actions already taken by the House of Delegates, but without knowledge of the recommendations of the Business Committee on the matter referred to them.

APPROPRIATIONS

Publication	$14,000.
Welfare	750.
Credentials	400.
Executive Secretary and Editor: salary	10,000.
Executive Secretary, office rent	1,000.
Executive Secretary, office furniture	500.
Executive Secretary office expenses	2,400.
Executive Secretary, travel	2,000.
Field Secretary: salary	4,000.
Recording Secretary: salary	1,500.
Recording Secretary, expenses	750.
Recording Secretary, office	1,650.
Treasurer's expenses	100.
A. M. A. Delegates	800.
Legal	1,000.
Printing and Stationery	1,800.
Tri-state Conference	150.
County Secretaries' Conference	150.
Contingent Fund	2,500.
Reserve	3,000.
	$48,450.

To meet these appropriations we expect the following:

INCOME

Balance	$ 200.
Assessment	39,000.
Publication	8,500.
Interest	750.
	$48,450.

The committee has elected Dr. Harry R. North as chairman, Dr. Paul M. Mecray, deputy chairman, and requests that in the absence of Dr. North until August 20, 1929, all bills and accounts be sent to Dr. Mecray for approval.

Respectfully submitted,

H. Garrett Miller.

Upon motion, duly made and seconded, the report of the Committee on Finance and Budget was unanimously adopted.

Dr. Stewart: Mr. President, there has been a great deal of talk recently concerning the threatened advent of "state medicine", and it would seem that in view of conflicting interests between professional and lay organizations, it might be wise to present some constructive plan for the solution of disputed questions and the conduct of public health programs.

Dr. Morrison: I would suggest that Dr. Stewart, who is one of our Delegates to the American Medical Association, prepare a resolution calling upon that national organization to appoint a committee for study of this problem.

Dr. Stewart agreed to follow this suggestion.

President Mulford: There should be now a report from the Judicial Council but no member thereof seems to be present. The matter about which we expected a report is the complaint made by Dr. Stillwell, of Lakewood, against the Ocean County Medical Society. Possibly the report is not forthcoming because the Council contemplates visiting Ocean County to secure further information.

Dr. Lathrope: Suppose that the Council should find in favor of the contestant and suppose that the county society persists in refusing him admission, is it possible for that physician to secure membership in the State Society in some other way?

Dr. Quigley: Under the new Constitution and By-Laws a man cannot secure membership in any county other than that in which he lives and practices, except with approval of the society of the county in which he lives.

Dr. Lathrope: I think that is true and proper regarding men already belonging to one society but how does it apply to the man who has never become a member of any county society? If he is kept out because of unprofessional conduct, no other county society is likely to take him in but if a hypothetical situation may be considered where a man is kept out because of prejudice or local politics, there should be some way for the State Society to take care of that man.

Dr. Quigley: Under the new By-Laws the Councils seems to have the authority to instruct the county society to accept a candidate

if the Council believes that man has been unjustly treated.

Dr. Morrison: I do not believe that the Council has the right to instruct a county society to accept a member but it can recommend to the House of Delegates that this body shall instruct the county society to accept him. If the House of Delegates should issue such instructions, the county society, being a component part of the state organization, would probbaly sit up and take notice.

Dr. Quigley: In Section 5, paragraph d, of Chapter VII, it is provided that such decisions by the Judicial Council shall be binding unless or until reversed or modified by the House of Delegates.

Dr. Lathrope: I was seeking a way to smooth over the affair by allowing him to join the society of a neighboring county.

Dr. Hunter: The county society should not be able to unjustly keep a man out of the State Society, for you will remember that a physician can get into the American Medical Association over the heads of the county and even the state societies.

Dr. Quigley: I think this State Society retains the right to direct any county society to accept a candidate provided the Council finds that such candidate has been treated unjustly.

Dr. Morrison: I recall that a delegate from Warren County raised that point and objected to this section of the By-Laws because of the fact that the final decision rests with the State Society; he wanted final authority to rest with the county society but the House of Delegates, at the session on Wednesday, decided against his contention.

Dr. Lathrope: I raised this question really in order to have that point brought out and emphasized.

President Mulford: It is now my pleasant duty to install the newly elected President of the Medical Society of New Jersey and to introduce to you Dr. Andrew F. McBride.

Dr. McBride expressed his pleasure at receiving this honor and promised to conduct the affairs of the Society to the best of his ability.

Dr. Lathrope: In view of the fact that the last session of the House of Delegates at each annual meeting is attended by so few members, I move that hereafter the introduction of the incoming President take place at the general meeting immediately after the annual election.

This motion was duly seconded and adopted.

Dr. Quigley: My attention having been attracted to the fact that the Business Committee made no report upon features set forth in the annual report of the Recording Secretary and that no specific action has been taken upon Dr. Morrison's recommendation for postgraduate courses conducted under the auspices of Rutgers College, I move that Dr. Morrison's report be accepted, his recommendations adopted, and that steps be taken to put those recommendations into effect.

This motion was seconded and adopted.

Upon motions made by Drs. Stewart and Hunter, the usual votes of thanks to the President for his conduct of meetings, to the hotel for special privileges granted, and to the press for publicity given to proceedings of the annual meeting, were adopted.

The meeting then adjourned.

GENERAL SCIENTIFIC SESSION

Thursday Morning, June 13, 1929

SYMPOSIUM ON PULMONARY DISEASES

The meeting was called to order in the Vernon Room of Haddon Hall, Atlantic City, New Jersey, at 9:50 a. m., by President Mulford.

President Mulford: Ladies and Gentlemen: We are honored in having the scientific section of this program opened this morning by Dr. S. B. English, of Glen Gardner, who will speak on "Subsequent History Records of 10,000 Patients Discharged from the State Sanatorium, Between 1907 and 1928".

Dr. English presented his prepared paper.

President Mulford: We will complete the whole symposium and have the discussion follow.

The next paper will be by Dr. B. S. Pollak, of Secaucus, on "Tuberculosis in Infancy and Childhood".

Dr. Pollak presented his prepared paper.

President Mulford: The next paper on this program is on "The Modern Treatment of Tuberculosis, with Especial Reference to Rest", by Dr. H. R. M. Landis, of Philadelphia.

During the presentation of this subject by Dr. Landis, Dr. G. N. J. Sommer, of Trenton, took the chair.

Chairman Sommer: Next on the program is a paper on "Relapses in Tuberculosis", by Dr. Martin W. Collier, of Lakeland.

Dr. Collier presented his prepared paper.

During presentation of this paper, President Mulford resumed the chair.

President Mulford: I am especially glad to introduce to you the next speaker in this Symposium. Dr. John J. Lloyd, of Rochester, New York, as he was one of my classmates at the University of Virginia. Since that time, in 1903, our paths have diverged and, strange as it may seem, although we have been within a few miles of each other many times, this morning in front of Haddon Hall was the first opportunity I have had to shake him by the hand since June, 1903. He has gone along in his special field of endeavor to great renown.

I now take great pleasure in presenting Dr. John J. Lloyd, of Rochester, New York, who will speak to you on "Differential Diagnosis of Pulmonary Diseases".

Dr. Lloyd delivered his prepared address.

Discussion on the papers presented in this Symposium on Pulmonary Diseases was opened by Dr. A. E. Jaffin, who illustrated his remarks with several slides. Dr. Jaffin was followed by Dr. Felix Baum, Dr. C. I. Silk and Dr. George H. Lathrope, being closed by Dr. English.

President Mulford: I want to add my voice to the expression already made by Dr. Pollak, and in addition I want to thank our own local men who have contributed these splendid papers to this symposium. In behalf of the State Medical Society of New Jersey, I especially want to thank the two distinguished internists who have come to speak to us, Dr. Landis and Dr. Lloyd.

This will close this session.

The meeting adjourned at 12:45 p. m.

Thursday Afternoon, June 13, 1929

SYMPOSIUM ON TRAUMATIC SURGERY

The meeting convened at 2:20 p. m., President Mulford presiding.

President Mulford: The meeting will please come to order.

Dr. B. S. Pollak (Secaucus): I note the presence in our section of Dr. Reese, of Shamokin, a member of the Pennsylvania Medical Society. I move that the courtesy of the floor be extended to him.

President Mulford: Dr. Reese, it gives us great pleasure to welcome you and to extend to you all the courtesies of our convention. I hope you will enjoy this convention as much as I enjoyed your convention down at Virginia Beach.

We will now have the Report of the Nominating Committee. Dr. Morrison.

Report of the Nominating Committee

The Nominating Committee of the Medical Society of New Jersey met in regular session Wednesday, June 12, 1929, at 4 p. m., in Room D, Haddon Hall, Atlantic City.

The meeting was called to order by Dr. Walt P. Conaway, and following the new rules as proposed in the revision of the Constitution and By-Laws, elected as Chairman, Dr. Walt P. Conaway, the Junior Past President of the State Society. Dr. Lancelot Ely was elected Secretary. At the roll call by counties, all but 3 responded.

The following officers and committees were selected for recommendation to the State Society:

President, Andrew F. McBride, of Paterson.

First Vice-President, George N. J. Sommer, of Trenton.

Second Vice-President, John F. Hagerty, of Newark.

Third Vice-President, Paul M. Mecray, of Camden.

Corresponding Secretary, William J. Carrington, of Atlantic City.

Recording Secretary, J. Bennett Morrison, of Newark.

Treasurer, Elias J. Marsh, of Paterson.

Member of Board of Trustees, Fourth District, George T. Tracy, of Beverly.

Councillors:

First District, Christopher C. Beling, Newark.

Second District, Francis H. Todd, Paterson.

Third District, F. G. Scammell, Trenton

Fourth District, Marcus W. Newcombe, Brown's Mills.

Fifth District, Aldrich C. Crowe, Ocean City.

Committee on Program and Arrangements: William G. Schauffler, Princeton.

Committee on Scientific Work: Henry C. Barkhorn, Newark.

Committee on Hygiene and Sanitation: Gordon K. Dickinson, Jersey City; J. Finley Bell, Englewood.

Delegates to American Medical Association: John F. Hagerty; B. S. Pollak; Ephraim R. Mulford.

Alternate Delegates: George H. Sexsmith and C. B. Smith.

Committee on Publication: Edward J. Ill, Newark.

Committee on Finance and Budget; John Nevins, Jersey City.

Delegate to Pennsylvania State Society: W. Blair Stewart.

Delegate to New York State Society: George H. Lathrope.

The Nominating Committee, after due consideration, unanimously recommended to the Board of Trustees that the annual meeting of the State Society for 1930 be held in Atlantic City.

Respectfully submitted,

Lancelot Ely,

Secretary, Nominating Committee.

President Mulford: Gentlemen, you have heard the Report of the Nominating Committee. What is your pleasure?

Member: I move that the report be ac-

cepted and the Secretary be ordered to cast the ballot of the Society for those names read.

The motion was seconded and carried.

Secretary Morrison: The ballot is so cast.

President Mulford: I hereby declare the Report of the Nominating Committee received and the candidates named therein elected.

President Mulford: Ladies and Gentlemen: The State Society has the privilege of presenting to you this afternoon a Symposium on Traumatic Surgery. It gives me great pleasure to present to you, as the first speaker, Dr. Walter E. Dandy, of Baltimore, Professor of Surgery at Johns Hopkins Medical School.

Dr. Dandy delivered his address on "Injuries to the Head", which was illustrated with slides.

President Mulford: Dr. Dandy, the Medical Society of New Jersey feels very much indebted to you for this masterly lecture. We thank you for coming and presenting it to us.

Dr. Martin Reddan, of Trenton, will open the discussion.

Dr. Reddan was followed by Dr. George Reese, Superintendent of the Shamokin State Hospital, Pennsylvania, Dr. Dandy closing.

President Mulford: We will now have the second paper in this Symposium entitled, "Fractures of the Femur, from the Standpoint of the General Practitioner", by Dr. Elmer P. Weigel, of Plainfield.

Dr. Weigel presented his prepared paper.

During the presentation of this paper Dr. D. L. Hagerty, of Trenton, took the chair and Dr. Andrew F. McBride, of Paterson, later took the chair.

Chairman McBride: This Symposium will be continued with a paper on "Injuries to the Back", by Dr. Carl R. Keppler, of Newark.

Dr. Keppler presented his prepared paper which was accompanied by slides. This paper and that of Dr. Weigel were discussed by Dr. Henry B. Kessler and Dr. Maurice S. Avidan.

Chairman McBride: The next paper will be one on "Abdominal Mysteries", by Dr. David B. Allman, of Atlantic City.

Dr. Allman presented his prepared paper.

Chairman McBride: Dr. Mason, of Atlantic City, will open the discussion.

Dr. Mason was not present.

Chairman McBride: Next on our program is a paper by Dr. F. William Shafer on "The Relation of Trauma to the Etiology of Inguinal Hernia".

Dr. Shafer presented his prepared paper.

Discussion of both Dr. Allman's and Dr. Shafer's papers was participated in by Dr. J. Wesley Barrett, Dr. George Blackburn and Dr. Merrill A. Swiney.

Chairman McBride: If there are no further questions or no further discussion, we will adjourn.

The meeting adjourned at 5:30 p. m.

Friday Morning, June 14, 1929

The Session convened at 9:50 a. m., President Mulford in the chair.

President Mulford: The meeting will please come to order.

I regret to announce that Dr. Schamberg has misunderstood the time set for his paper. He understood that he was to speak at 2 o'clock. In a telephone conversation with him this morning he said that it would be impossible for him to get here to fill his 9:30 engagement but he will be here to speak to us at the beginning of the afternoon session.

So we now have the pleasure of presenting to you a paper on "Benign Enlargement of the Prostate Gland", by Dr. C. H. deT. Shivers, of Atlantic City.

Dr. Shivers read his prepared paper, which was illustrated with slides. Discussion followed by Drs. E. V. Johnson, A. H. Lippincott, M. H. Axilrod, J. H. Hakiman, H. Garrett Miller and S. R. Woodruff.

President Mulford: Is there anyone else who wishes to discuss this paper? If not, we shall proceed with the second paper.

Dr. Stanley R. Woodruff, of Bayonne, will talk on "Injuries to the Kidney—A Study of the After-effects".

Dr. S. R. Woodruff presented his prepared paper, during the presentation of which Dr. Andrew F. McBride took the Chair.

Chairman McBride: We all appreciate this very excellent paper by Dr. Woodruff.

The next paper on the program is one by Dr. D. F. Bentley, of Camden, on "Tumors of the Testicle—Report of a Case".

Dr. Bentley presented his prepared paper and showed a number of illustrative slides.

Chairman McBride: We are all indebted to Dr. Bentley for his very excellent paper.

The next paper on the program is by Dr. Robert L. McKiernan, of Newark, on "Urological Symptoms—Their Significance".

Dr. McKiernan presented his prepared paper.

Chairman McBride: If Dr. McKiernan will consent, we will defer the showing of the lantern slides on this excellent paper and likewise the discussion until after the President's Annual Address.

We are very fortunate indeed in having

had the destinies of this society guided so capably during the past year. I don't know of any time in which the society's business has been carried on with such despatch and with such fine results. Dr. Mulford has been really wonderful during the past year. He has gone through the entire State of New Jersey coöperating with component societies and smoothing out differences. There have been very few differences, and that is as it should be.

I now take great pleasure in introducing the President of the State Society, who will deliver his Annual Address.

The convention arose. (Applause.)

President Mulford: Fellow Officers, Distinguished Guests, Members and Friends of the Medical Society of New Jersey: Since the preparation of my paper, we have completed a large part of our annual meeting. The House of Delegates, the Board of Trustees, the Committee on Finance and Budget, through their meetings and actions taken, have made it possible for whatever work and whatever good has been gained during this last year to be carried on by my successor. I wish to take this opportunity to thank these committees and these officers who have made this possible. I personally feel that much has been accomplished during the past 4 or 5 years that has been somewhat revolutionary. I further feel that this work should progress; that we should not "stay put" but should go on to a brighter, more glorious future for this venerable old State Medical Society, and this action has made that advance possible.

I take this opportunity to thank you from the bottom of my heart that you have given me the privilege of serving you.

President Mulford presented his prepared paper.

The convention arose.

President Mulford resumed the Chair.

President Mulford: We will proceed with Dr. McKiernan's demonstration.

Dr. McKiernan then exhibited the slides which accompanied his paper.

President Mulford: We shall be glad to hear discussion on Dr. McKiernan's very capable paper.

If there is no discussion, we shall now close the morning session and gather together again this afternoon at 2:30 to hear Dr. Jay F. Schamberg.

The meeting adjourned at 1 p. m.

Friday Afternoon, June 14, 1929

The session convened at 2:30 p. m., President Mulford presiding.

President Mulford: The Medical Society of New Jersey is certainly to be congratulated this afternoon on having present one of the most distinguished dermatologist in the United States. It gives me keen pleasure to present to you at this time Dr. Jay F. Schamber, of Philadelphia, who will speak to us on "Newer Methods of Treatment in the Attack on Syphilis".

Dr. Schamberg addressed the section on the subject given, which was subsequently discussed by Drs. Karl M. Scott, A. E. Jaffin and H. A. Schachter.

President Mulford: We are again privileged to listen this afternoon to another distinguished physician. I take great pleasure in presenting Dr. Louis Faugeres Bishop, Sr., and Dr. Louis Faugeres Bishop, Jr., of New York. Their subject will be "A Clinical Study of a Graphic Method of Recording Blood Pressure".

Dr. Louis Faugeres Bishop, Sr., (New York): It is certainly a great pleasure to be here. Dr. William Elmer, of Trenton, was my preceptor when I studied medicine and I think I presented my first medical paper before the medical Society of New Jersey under his tutelage. Now I have my son helping me and he has been making these studies in this graphic method of blood pressure recording, which he will have great pleasure in telling you about.

Dr. Bishop presented his prepared paper with illustrative slides.

Dr. Louis Faugeres Bishop, Jr.: Now we are going to demonstrate this graphic recording machine. I have brought a technician with me to show you how it operates.

Demonstration.

During the course of the presentation of this paper Dr. Andrew F. McBride took the Chair.

Chairman McBride: This very excellent paper, together with the demonstration, is now open for discussion. Do you care to discuss Dr. Bishop's paper or ask any questions?

Dr. Louis Faugeres Bishop, Sr.: I think the Taylor Instrument Company deserves a great amount of credit for the tremendous amount of expense they have covered on this machine. Although, unfortunately, it is not very practical, still I think they deserve a great deal of credit for trying to give the profession an instrument for the graphic determination of blood pressure and I hope that some time they may make it more practical. It requires the skillful attention of a single person to really keep it going and I think it is a fine step in the right direction.

Chairman McBride: Drs. Bishop, the Society feels greatly indebted to you both for coming

here to give this very excellent demonstration and paper.

The next paper on the program is by Dr. Clarence L. Andrews, of Atlantic City, on "Some of the Atypical Pneumonias".

Dr. Andrews presented his prepared paper on "The So-called Atypical Pneumonias", after which Dr. Louis Faugeres Bishop, Sr., stressed his agreement with certain points brought out by Dr. Andrews.

Chairman McBride: Is there anyone else who would care to discuss this? I want to thank Dr. Bishop for doing so. I think he pointed out quite clearly how careful we should be in all doubtful cases and how very important in all cases is a thorough examination.

The next paper on the program is one by Dr. D. Ward Scanlan, of Atlantic City—"Influenza: Clinical Observations in Cases in Hospital and Private Practice".

Dr. D. W. Scanlan presented his prepared paper, which was discussed by Dr. Clarence L. Andrews.

Chairman McBride: Is there anyone else who would care to discuss this paper? If not, I want to ask if Dr. Snedecor is in the hall?

If not, we will have Dr. Kramer's paper on "Gonorrheal Septicemia and Endocarditis".

Dr. S. E. Kramer, of Perth Amboy, presented his prepared paper which was discussed by Dr. Louis F. Wetterberg, of Woodbridge, Dr. Kramer closing.

Chairman McBride: We are thankful to Dr. Kramer for his paper and to Dr. Wetterberg for the discussion.

As there is nothing further, the meeting is adjourned.

Meeting adjourned at 5 p. m.

SECTION ON OPHTHALMOLOGY, OTOLOGY AND RHINOLARYNGOLOGY

Thursday Morning, June 13, 1929

The Section on Ophthalmology, Otology and Rhinolaryngology of the Medical Society of New Jersey, convened in Room "E", Haddon Hall, Atlantic City, New Jersey, at 10:05 a. m., Dr. Linn Emerson, Chairman of the Section, presiding.

Chairman Emerson: The meeting will please come to order.

Our program this morning is practically all on the subject of refraction work. I had intended to have the discussion of all 3 papers at one time—but as Mr. Reiss' paper opens up a little different field from that of the other two, it might be advisable to keep the 2 subjects separate. I am open to suggestions from any of the members, but it seems to me that it would probably be best to have Dr. Pendexter and Dr. Appleman present their papers, then have a discussion of those two, and later have Mr. Reiss' paper, followed by a discussion. So, if there are no objections, I will follow that plan.

Dr. Sidney E. Pendexter, of East Orange, then read his paper on "Relative Importance of the Fitting of Glasses in Ophthalmic Practice". He was followed by Dr. Leighton F. Appleman, of Philadelphia, whose subject was "Importance of Cycloplegia in Fitting of Glasses".

Discussion of these papers was opened by Dr. H. L. Harley.

Chairman Emerson: I should be very glad to have a full discussion on this subject, especially glad to hear from some of the men who do not favor cycloplegia. I think we ought to hear all sides of this question. So I am going to ask that the members all feel free to discuss these papers and I must request each one, as I did before, please to give his name and address to our secretary.

In response to this invitation, discussion of the two papers was continued by Drs. Schlichter, Littwin, Fisher, Marsh, Sherman, Pilkington and Emerson.

Chairman Emerson: Our next paper is on "Fitting of Glasses from the Optician's Standpoint", by Mr. J. C. Reiss, President of the Guild of Prescription Opticians of America.

Mr. Reiss presented his prepared paper, discussion of which was opened by Dr. Elbert S. Sherman, of Newark, and continued by Drs. Emerson, Marsh, Littwin and Mr. Eugene Anspach, of Newark.

Meeting adjourned at 12:45 p. m.

Thursday Afternoon, June 13, 1929

The meeting was called to order in the Blue Room of the Chalfonte Hotel, Atlantic City, by Chairman Emerson at 2:55 p. m.

Chairman Emerson: The first paper of the afternoon is by Dr. Hartshorne, of New York, on "Phaco-erisis".

Dr. Isaac Hartshorne, of New York City, presented his prepared paper.

Chairman Emerson: It seemed to me most interesting, Dr. Hartshorne, that in connection with this paper we should discuss some other technic of cataract operation, so I have asked 3 men to speak on simple extraction, combined extraction and preliminary iridectomy. First, Dr. Marsh, of Paterson, will speak on "Simple Extraction".

Dr. Elias J. Marsh (Paterson): Mr. Chairman, before I begin, I would just like to say I haven't prepared any dissertation on simple extraction. My assignment was simply to tell in a short paper why I sometimes do a simple extraction. I take it for granted everybody is familiar with the operation. That is all I have attempted to do.

Dr. Marsh presented his prepared paper.

Chairman Emerson: This subject will be continued by Dr. Lee W. Hughes, of Newark, on "Combined Extraction".

Dr. Lee W. Hughes (Newark): When Dr. Emerson called me up and asked me to write on combined extraction, it was my impression he wanted me to give a paper on the manner in which I do the operation and also the examination leading up to that operation.

Dr. Hughes presented his prepared paper.

Chairman Emerson: This subject will be continued by Dr. Charles H. Schlichter, of Elizabeth, who will speak to us on "Preliminary Iridectomy".

Dr. Charles H. Schlichter presented his prepared paper.

Chairman Emerson: Gentlemen, this subject of cataract is now open for general discussion. Would you care to say something, Dr. Appleman?

The discussion, opened by Dr. Appleman, was participated in by Drs. Littwin, Sherman, Emerson, Hartshorne, Marsh, Hughes and Schlichter.

Chairman Emerson: I feel that our Ophthalmologic Section of the New Jersey Medical Society is greatly indebted to Dr. Appleman and Dr. Hartshorne for coming here to give us these papers. I am prepared to entertain a vote of thanks.

Dr. Hughes: Mr. Chairman, I make a motion we extend a vote of thanks to Dr. Appleman and Dr. Hartshorne for their very valuable papers.

The motion was seconded and carried.

Chairman Emerson: The thanks of the Section are conveyed to Dr. Appleman and Dr. Hartshorne.

Out of our respect for our President, whose address is scheduled for 12 o'clock tomorrow, we should begin as early as 10 o'clock in the morning. We have 3 papers, a symposium on otitis media, and I believe that our program will take at least 2 hours, because I look for rather free discussion, so I should like to begin promptly at 10.

The meeting stands adjourned.

Friday Morning, June 14, 1929

The meeting was called to order in the Blue Room of the Chalfonte Hotel, Atlantic City, New Jersey, at 10:05 a. m.

Chairman Emerson: We have a disappointing piece of news to report this morning. Due to the very severe illness of a patient—a small child—Dr. Orton has been kept up nearly all night. I received a telegram very early this morning stating that he would not be able to be present. That leaves us with only 2 papers. So I think we will wait a few minutes more and see if our audience will not be augmented a little before we start.

Recess.

Chairman Emerson: Gentlemen, I think we can start our meeting.

For the benefit of those who were not present when I made the announcement a few moments ago, I regret to state that through the exigencies of medical practice, Dr. Orton has been detained in Newark and will not be able to be present. I think it would be most fitting, since Dr. Orton has prepared this paper and it was only by the severe illness of a patient that he was prevented from coming, that this paper be read by title so that it may be published in the State Medical Journal to complete our symposium on otitis media. If it is your wish, I am prepared to entertain such a motion.

Dr. Wood: I move Dr. Orton's paper be read by title and published in the State Journal.

The motion was seconded and carried.

Chairman Emerson: I had a talk with Dr. Reik this morning and it seems that the State Medical Society is satisfied with the progress of our Section and desires to continue it; so he asked that the first thing this afternoon we elect a Chairman and a Secretary for the ensuing year. That will take place before the papers are read at the afternoon session.

In the absence of Dr. Orton, the first paper that we will listen to this morning will be that of Dr. Earl LeRoy Wood, of Newark, on "Prevention and Treatment of Chronic Suppurative Otitis Media".

Dr. Wood presented his prepared paper.

Chairman Emerson: We will next have a paper by Dr. Henry C. Barkhorn, of Newark,

on "Prevention and Treatment of So-Called Chronic Catarrhal Otitis Media".

Dr. Henry C. Barkhorn (Newark): The title was not of my choosing, and when I said to Dr. Emerson, "What shall I say?" he replied, "Oh, well, you just tell them if it isn't due to focal infection, you can't do anything for them anyhow."

So that would be the beginning and ending of my paper. The rest of the story is that if I seem to drag some things into my paper by their back hair, it is because I want to get them on record in a reprint to use in the various clinics. In our clinics that do not employ a technician, it is astonishing how seldom we really know whether a case is one of pure catarrhal deafness, or a mixed deafness, and the reason for this is because the procedure is made quite complicated instead of being reduced to its simplest terms. I purposely omit all discussion of the audiometer, because, although the audiometer is good as a record of the progress of your case, as far as real diagnosis is concerned, you can only make it on dropping at the beginning of the scale or dropping at the end of the scale, deafness, otosclerosis and catarrhal deafness, and it is not helpful in a diagnostic way.

Dr. Barkhorn presented his prepared paper which was discussed by Drs. Fisher, Yozujian and Emerson.

Meeting adjourned at 12:45 p. m.

Friday Afternoon, June 14, 1929

The meeting was called to order by Chairman Emerson at 2:30 p. m. in the Chalfonte Hotel, Atlantic City, New Jersey.

Chairman Emerson: In the dining room a few minutes ago I had a short talk with Dr. Mulford, our President. He apologized for not having been in our Section and told me how interested he was and how glad that our Section had been successful. He sent his best wishes and asked us to forgive him for failing to be present with us, but there were no Vice-Presidents available this morning to take the chair.

He says the Board of Trustees and the Program Committee are very well suited with our progress and wish the Section continued, and he suggested that we organize this afternoon as we did last year, electing a Chairman and a Secretary. So the first order of business this afternoon will be to elect a Section Chairman for next year.

Dr. Charles F. Adams (Trenton): Mr. Chairman, I don't see how we can better the present arrangements. I propose we shall continue the present Chairman. I don't know who would put that, but I make that a motion.

Chairman Emerson: Gentlemen, I appreciate very much the honor you have conferred on me in making me your Chairman and your desire to have me continue in that capacity. I don't feel that this position ought to be a life job by any manner of means. There are plenty of other men in the Section who can do this work just as well as I do or better than I. I have always been interested in the work of the New Jersey State Medical Society and continue to be so. I don't absolutely refuse to serve, but I do feel that it is an honor and should be given to some other man. I wish you would consider seriously the nomination of someone else.

As I came out, Dr. Barkhorn expressed to me his regret that he was unable to be present. I told him I was glad he was going, because I might induce somebody to nominate him for Chairman of the Section and I thought that perhaps we could elect him in his absence.

Dr. W. D. Olmstead (Atlantic City): Mr. President, I would like to second the nomination of Dr. Emerson for Chairman of this Section. I think partly with you, that it is well to rotate the office occasionally and not allow one man to have it for life, but you have gotten it started so well and while we are still in a more or less formative period, I think it would be very well for you to continue as Chairman for at least another year. I think the Section is very fortunate in having you act as Chairman. I very gladly second your nomination.

Chairman Emerson: Is there anything more to be said? Will our Secretary entertain the motion, please?

Dr. James A. Fisher (Asbury Park): Does anyone move the nominations be closed for Chairman of the Section?

Dr. Olmstead: I move the nominations be closed, and the Secretary be instructed to cast the unanimous ballot.

The motion was seconded and carried.

Dr. Fisher: I cast the ballot on behalf of Dr. Emerson and declare him elected Chairman for the ensuing year. (Applause.)

Chairman Emerson: As I said before, gentlemen, I appreciate the honor very much and with the interests of the Society at heart, I will do my best to give you a good program next year. I hope meanwhile you will take into consideration the fact that we have a lot of other good men—Dr. Sherman, Dr. Barkhorn, Dr. Wood, any number of capable men —who would do this work better than I. Don't let this be a life job for anybody.

I will entertain nominations for a Secretary.

Dr. Adams: I nominate Dr. Fisher.

Dr. Olmstead: I move the nominations be closed.

The motion was seconded and carried.

Chairman Emerson: All in favor of Dr. Fisher as the Secretary for this Section, say "Aye"; contrary, "No". Dr. Fisher is elected Secretary of the Section for the coming year.

This afternoon we have 2 papers, the first by Dr. McGivern, of Atlantic City, on "Suggestions for an Improved Technic of Submucous Resection of the Septum".

Dr. Charles S. McGivern: The subject, "Suggestions for Modification of Operative Procedure and Postoperative Treatment of Submucous Resections", is one to which I have given a good bit of attention recently, and it seems to me that there is very great room for improvement. There are numerous different methods for aftercare of septums, all of them more or less unnecessarily involved, it seems, if you compare them with procedures in other parts of the body.

The idea of this paper was to work out a method whereby we might be able to do away with packing. I have tried it successfully, and the few men I have talked to who have used it have been quite satisfied.

Dr. McGivern presented his prepared paper, which was discussed by Drs. Olmstead and Burritt.

Chairman Emerson: We are about to wind up in a blaze of glory by having a paper on the subject of tonsils. Dr. Charles F. Adams will read a paper on "Discussion of the Various Methods of Tonsillectomy". I purposely made our program short this afternoon, that is, as to number of papers feeling that everybody present would want to say a word about tonsils. It is a never-ending subject of discussion. I am not going to hold the watch. I am going to let every man in the room have something to say if he wants to. Dr. Adams.

Dr. Charles F. Adams: Mr. Chairman and Gentlemen: When I first became interested in tonsil work and adenoids, it was a question among many people whether so much operative intervention was necessary. There was a great deal of bally-hoo over the country, schools and everywhere, educating the people as to the necessity for having tonsils and adenoids removed. That thing was successful. We don't any longer have to teach the mothers and teachers that it is necessary to have diseased tonsils removed. It has now come to the point of what is the best method. That has been very well discussed and pretty well settled in certain lines.

I am going to mention two or three of the different procedures and leave it to the rest of the gentlemen to elaborate on them.

Dr. Adams presented his prepared paper.

Chairman Emerson: We are most fortunate in having with us today Dr. Skillern, of Philadelphia. Dr. Samuel Skillern will open the discussion of Dr. Adams' paper.

Discussion was continued by Drs. Crane, Emerson, Marsh and McGivern.

Chairman Emerson: Gentlemen, this brings our program to a close, and the meeting stands adjourned.

The meeting adjourned at 3:45 p. m.

SECTION ON PEDIATRICS

Thursday, June 13, 1929

The Section on Pediatrics was called to order at 9:50 a. m. in the Gold Room of the Chalfonte Hotel, by the Chairman, Dr. E. G. Hummel, of Camden.

(1) Paper entitled "Ideals and Standards in Children's Hospital Practice" was read by Dr. Elmer Chase Jackson, East Orange, and was discussed by Dr. Stanley Nichols, of Asbury Park.

(2) Paper by Dr. Royce Paddock, of Newark, on "Value of Some Common Laboratory Procedures in Diseases of Infants and Children". Discussion followed by Drs. Vincent Del Duca, Camden; Frank W. Pinneo, Newark, and George H. Lathrope, Morristown, being closed by Dr. Paddock.

(3) Dr. James S. Plant, of Newark, read a paper entitled "The Place of a Mental Hygiene Clinic for Children in the Community", which was discussed by Drs. Guy Payne, Overbrook, Pa.; Henry Spence, Jersey City; E. C. Jackson, East Orange; Clarence Way, Sea Isle City; Julius Levy, Newark; C. Englander, Newark; Joseph H. Marcus, Atlantic City; F. C. Johnson, New Brunswick, and in closing, by Dr. Plant.

Dr. E. C. Jackson (East Orange): I want to thank Dr. Plant for a very illuminating paper. I think we would have been very remiss in this Section if, after hearing a paper of this kind and

hearing Dr. Spence say that it is a job of the magnitude that we all doubtless recognize, we do not attempt to do something about it. It is a big job and I wonder whether the Section would feel it worth while to appoint a committee from this Section to study the situation as far as they can during the next year—together with those who know most about it, such men as Dr. Plant, for instance—and see if there is anything we can do as a Section to start work along this particular line. I therefore make a motion that the Chair appoint such a committee.

(Committee was appointed at the next session.)

Dr. Clarence Way (Sea Isle City): I second Dr. Jackson's motion. At the Woodbine, where I am attending physician, we have 350 patients and are greatly interested in this work in general but we find that the formation of a clinic such as has been suggested would be prohibitive because of the cost. We are using our county nurse for all feeble-minded children; they are visited by the nurse and are looked after without exception, but the clinic at present is beyond what we can stand financially. I think the subject should be studied along the lines suggested and that a committee should be appointed for this purpose.

(This motion was put before the Section and carried and committee appointed at next session.)

(4) Paper by Dr. Julius Heilbrunn, Jersey City, entitled "Hereditary Syphilis in Children", was discussed by Dr. S. A. Levinsohn, Paterson.

Adjournment at 12:10.

Thursday Afternoon, June 13

The meeting was called to order at 2:30 p. m.

Nominating Committee was appointed by the Chair to report on the selection of a Chairman and Secretary to serve during the ensuing year, as follows: Dr. Walter B. Stewart, Atlantic City; Dr. F. C. Johnson, New Brunswick; and Dr. Julius Levy, Newark.

The Chair then appointed an Investigating Committee to take up the work suggested by Dr. Plant in his paper read at the morning session, as follows: Drs. E. C. Jackson, East Orange, Chairman; C. C. Beling, Newark; Henry Spence, Jersey City; Julius Levy, Newark.

The Chairman announced that he had a printed report on the foregoing subject by Dr. Dickinson, who showed about the same findings as those obtained by Dr. Plant in regard to Mental Hygiene Clinics; that this report would be presented to the committee and they could probably work, together with Dr. Plant, along this line and be able to report their findings to the Society at the meeting next year.

(1) Paper entitled "Pneumococcus in Nephrosis" was read by Dr. Walter B. Stewart, Atlantic City, and discussed by Drs. F. C. Johnson, New Brunswick; H. B. Silver, Newark; Arthur Stern, Elizabeth; H. I. Goldstein, Camden, and Julius Levy, Newark.

(2) Paper was read by Dr. John McK. Mitchell, Philadelphia, Pa., on "The Production of Sensitivity to Horse Serum by Diphtheria Toxin-Antitoxin", and was discussed by Drs. Fred W. Lathrop, Plainfield; J. F. Anderson, New Brunswick; H. I. Goldstein, Camden; Julius Levy, Newark, and, in closing, by Dr. Mitchell.

(3) Paper was read by Dr. Victor DuBusc, Elizabeth, entitled "Meningococcus Meningitis, with a Survey of 50 Cases from the Records of the Babies' Hospital, New York City". Discussed by Drs. H. I. Goldstein, Camden; Arthur Stern, Elizabeth; Joseph H. Marcus, Atlantic City; Frank W. Pinneo, Newark; R. A. Shirrefs, Elizabeth, and in closing, by the essayist.

(4) Dr. Harry B. Silver, of Newark, read a paper on "Acute Purulent Mastoiditis at Eight Weeks". Discussion by Drs. Henry C. Barkhorn, Newark; F. C. Johnson, New Brunswick; was closed by Dr. Silver.

Adjournment at 5:00 p. m.

Friday Morning, June 14, 1929

The meeting was called to order at 9:50 a. m. by the Chairman, Dr. E. G. Hummel, of Camden.

(1) Paper entitled "Chorea: Etiology and Treatment" was read by Dr. E. L. Minard, East Orange, and discussed by Drs. R. A. Shirrefs, Elizabeth; Charles I. Silk, Perth Amboy; Stanley H. Nichols, Long Branch; D. J. M. Miller, Atlantic City; S. A. Levinsohn, Paterson; Stanley H. Nichols, Long Branch, and Dr. Minard.

(2) Dr. Kenneth Blanchard, East Orange, read a paper entitled "Celiac Disease and Its Treatment", which was discussed by Drs. E. G. Wherry, Newark; D. R. Crounse, Passaic; D. J. M. Miller, Atlantic City; Stanley H. Nichols, Long Branch; R. A. Shirrefs, Elizabeth, and Dr. Blanchard.

(3) Paper was read by Dr. S. A. Levinsohn, Paterson, on "Buttermilk in Infant Feeding", and discussed by Drs. Harry B. Silver, Newark; F. C. Johnson, New Brunswick; D. R. Crounse, Passaic; Joseph H. Marcus, Atlantic City; E. G. Wherry, Newark; and in closing by the essayist.

(4) Paper was read by Dr. Chester Brown, Arlington, on "The Oxygen Tent in Pneumonia", which was discussed by Drs. D. R. Crounse, Passaic; Frank W. Pinneo, Newark; E. G. Wherry, Newark; and, in closing, by Dr. Brown.

Adjournment at noon.

Friday Afternoon, June 14, 1929

Meeting was called to order at 2:20 p. m.

(1) Paper was read by Dr. B. F. Buzby, Camden, entitled "End-Results of Stabilizing Operations on the Feet", and discussed by Dr. Rutherford L. John, Philadelphia, and, in closing, by the essayist.

(2) Dr. Roger H. Dennett, of New York, read a paper entitled, "Routine Use of Vitamine 'B' a Factor in Infant Feeding", which was discussed by Drs. Joseph H. Marcus, Atlantic City; D. R. Crounse, Passaic; Julius Heilbrunn, Jersey City; F. C. Johnson, New Brunswick; H. B. Silver, Newark; Stanley H. Nichols, Long Branch; and, in closing, by Dr. Dennett.

(3) Paper was read by Dr. Fred W. Lathrop, Plainfield, on "Use of Adult Whole Blood in the Prophylaxis of Measles", and was discussed by Dr. Frank C. Johnson, New Brunswick, and, in closing, by Dr. Lathrop.

Report was received from the Nominating Committee, the names of Dr. E. G. Hummel, Camden, being recommended for Chairman for the coming year; and F. W. Lathrop, Plainfield, for Secretary.

Motion was made by Dr. Wherry that the nominations be closed and that Dr. Hummel as Chairman and Dr. Lathrop as Secretary be elected by acclammation; which was duly seconded and carried.

(4) Paper was read by Dr. Elmer G. Wherry, of Newark, entitled: "The Thymus Gland". Discussed by Drs. Roger H. Dennett, New York; H. A. Schachter, Newark; H. B. Silver, Newark; Frank Devlin, Newark.

Dr. E. G. Hummel, Camden, in bringing the meeting to a close, said: When Dr. Darnall asked me to act as Chairman this year I felt honored and very much pleased, and I have greatly enjoyed the work. Now that you have elected me to serve in that capacity and take charge of this Section for another year, I am more than honored. I shall ask all of those here, and shall try to get in touch with all of the members of the New Jersey Pediatric Society, which is rather a dead issue at the present time, and see if we cannot put all of our eggs in one basket, put our shoulders to the wheel and help to make this section a great success. I would appreciate it if you would give me the names of those who are interested in pediatrics in other towns so that I may communicate with them and see if we cannot get up a great deal of interest in this section. I think the meeting has been a real success this year, even if I am speaking as the Chairman of the Section, and I will appreciate any assistance that you can give me during the coming year to make it a further success. I do not believe in one chairman succeeding himself from one year to another; it is against my principles entirely, but if this is your wish, as you have signified by reëlecting me, I am willing to do all I can to make the program for next year a great success.

Adjournment at 4:50 p. m.

WOMAN'S AUXILIARY TO THE MEDICAL SOCIETY OF NEW JERSEY

Thursday, June 13, 1929

The Third Annual Meeting of the Woman's Auxiliary to the Medical Society of New Jersey was called to order in the Music Room of the Hotel Chalfonte, Thursday morning, June 13, at 10 o'clock, by the President, Mrs. George L. Orton

The report of the Secretary, Mrs. G. N. J. Somer, was read, amended, and approved as amended.

The Treasurer, Mrs. James Hunter, Jr., read her report showing a balance of $163.30. She also presented an analysis of the present status of the auxiliary based on a comparison of paid-up memberships at the end of the first and second years after organization. This showed a slight falling off in the total membership. Mrs. Hunter explained the system she has devised for keeping these records and urged that her successors in office follow this or some equally detailed plan. Her report was accepted as read.

Mrs. Hunter thanked Mrs. VanNess for the form submitted, which was copied, and offered to confer with any county treasurer who needed help.

Dr. Ephraim R. Mulford, President of the Medical Society of New Jersey, was introduced, and addressed the meeting.

Madam President, Members and Guests of the Woman's Auxiliary to the Medical Society of New Jersey:

I appreciate the honor you have conferred on me, as Presiding Officer of the state medical society, in asking me to speak to you today.

During the past year I have visited medical organizations in every county of the state and in this way I have been in close touch with the activities of your society. I think the work that you have accomplished is wonderful, and I congratulate your officers and members on the untiring energy displayed in organization and constructive effort. Your assistance in our educational campaign is most heartily appreciated. The placing of Hygeia in public and school libraries and in many clubs and public waiting rooms by several county auxiliaries helps to keep the public informed on the latest and most accurate facts about public health and personal hygiene.

In making appointments with men's and women's clubs and other lay groups for our Field Secretary, you have contributed the most potent factor at our command for dissemination of health facts. Several celebrated lecturers have addressed clubs and other assemblies prearranged by you.

Some of the auxiliaries are circulating among their members such splendid books pertaining to our profession as "The Doctor Looks at Marriage and Medicine", by Dr. Joseph Collins; and Cushing's "Life of Osler".

In the Antidiphtheria Campaign, you have not only helped lay organizations arrange for clinics, and conducted educational campaigns by posters, distributed literature, planned lectures, but have actually taken your automobiles and brought in the children, so they could be immunized against this pestilence. The quiet and unassuming manner in which this work has been carried out is typical of medical services rendered by those who have the ideals of our profession at heart.

Some counties have held group meetings and spent the time in making surgical dressings and hospital supplies which are always urgently needed, and have also alded in the social service end of the hospital work when called on.

I have stressed the need of Periodic Health Examinations in every county visited, and the lectures on "Death Control", "Life of Pasteur", and other subjects, given by our Field Secretary, Mrs. Taneyhill, have been of inestimable value. Next year her work will be better organized and be more far reaching than has been possible in this, her first year.

I think that each one of your county auxiliaries should have a committee composed of 3 women, who will keep themselves thoroughly posted on medical legislation—study the Bills presented in Assembly and Senate, and communicate this information back to their own auxiliary and to the Welfare Committee of the county society. In this manner, every doctor in the state will become conversant with what is happening in the state and national legislatures and will be able to discuss intelligently the problems that confront him there.

I feel that the social side of our medical activity is in need of thorough reorganization and here is one of your greatest opportunities for service. In the sacrificial life of busy physicians, too little thought is given to physical relaxation and social intercourse, and through your social programs you are creating new friendships among your own members, and a happy understanding among physicians.

In our daily work no one understands us as well as do our wives and families. Few of us indeed there are who do not attribute much of what success we have attained in life to the long suffering patience of those fellow laborers.

I bring you the hearty greetings of the state society and assure you of their keen appreciation of your worthy efforts and pledge their continued support and coöperation in your every undertaking.

Dr. Mulford was followed by Dr. Morrison, Recording Secretary of the Medical Society, who, in the course of his remarks, advised his audience to take whatever setbacks the organization might experience philosophically—not to measure and weigh it periodically after the prescribed manner of checking up on the new baby.

A representative from Abbott's dairy company invited those present to inspect the dairy and have luncheon there. The invitation had to be regretfully declined because of the already full program planned for the delegates.

The President appointed a nominating committee composed of Mrs. Roscius I. Downs, of Riverside; Mrs. A. M. Schultz, of Paterson, and Mrs. J. Harris Underwood, of Woodbury. Reports of standing committees were called for:

Publicity, Mrs. George A. Rogers. No report in the absence of the chairman.

Public Health (including Hygeia), Mrs. R. A. Shirrefs. Mrs. Shirrefs read the following report for the year ending June, 1929:

Madam President and
Members of the Auxiliary:

In November, 1928, letters were sent to the presidents of the 21 county auxiliaries, asking that county chairmen of Public Health and Hygeia be appointed. To date the following 11 counties have such chairmen: Bergen, Mrs. W. S. Kilts of Teaneck; Burlington, Dr. Elizabeth Ford Love of Moorestown; Camden, Mrs. Harold F. Westcott of Clementon; Essex, Mrs. Don Eppler of Newark; Mercer, Mrs. D. Leo Haggerty of Trenton; Union, Mrs. G. S. Laird of Westfield; Gloucester, Mrs. J. Harris Underwood of Woodbury; Hunterdon, Mrs. Eleanor S. Painter of Flemington; Cumberland, Mrs. J. Howard Hornberger of Roebling; Hudson, Mrs. A. E. Jaffin of Jersey City. The names of these appointees were forwarded as soon as received to Mr. F. V. Cargill, circulation manager of Hygeia, and transactions concerning subscriptions have been made directly between Mr. Cargill and the individual chairmen.

In Camden, December 6-8, 1928, Mrs. J. Harris Underwood staged a Hygeia exhibit. This was theoretically under the auspices of the New Jersey State Federation of Women's Clubs, but it gave Hygeia a good opportunity to display itself, thanks to Mrs. Underwood.

In May, 1929, your chairman sent out 10 letters, asking for annual reports from the 10 chairmen (the eleventh having just been appointed). To date 3 reports have been received: from Gloucester, Union and Cumberland counties. Mrs. Underwood, for Gloucester, reports that Mrs. Taneyhill has spoken 4 times in that county, and that several subscriptions have been secured for Hy-

geia. Mrs. Laird reports, for Union, that the Union County Auxiliary held a card party to raise money for Hygeia subscriptions for the libraries of the county. Letters were written to 13 libraries; 6 had already subscribed, 2 did not answer, 2 did not care for it and the others wished it sent. Five physicians also subscribed. Mrs. Hornberger, for Cumberland, reported that 21 subscriptions had been procured through the auxiliary, and that 8 had been given to schools, libraries, Young Women's and Young Men's Christian Associations. Next year an attempt will be made to introduce Hygeia into the schools of this county. The auxiliary had also assisted in preschool preventive work and had made dressings for the hospitals.

From Mr. Cargill the following report was obtained: Subscriptions for Hygeia through county auxiliaries: Bergen 3, Burlington 9, Camden 12, Essex 19, Hunterdon 3, Mercer 6, total 52. Last year a total of 55 subscriptions were secured but 52 of these came from Camden alone. Mr. Cargill wishes to express to the members of the auxiliary his appreciation of their interest and coöperation.

In closing, your chairman would recommend to all members of her committee a careful reperusal of the pamphlet entitled, "Some Facts Concerning the Woman's Auxiliary to the American Medical Association", especially the information pertaining to philanthropic and educational groups.

Respectfully submitted,
Meta P. Shirrefs,
Chairman.

Committee on Program, Mrs. Stuart R. Maul, chairman. No report.

Committee on Registration and Credentials, Mrs. George F. Dandois, chairman. No report (Mrs. Dandois having been delayed by an automobile breakdown).

Committee on Entertainment, Mrs. E. R. Mulford, chairman. Mrs. Mulford called attention to the program as printed—the musicale for Thursday evening, the card party Friday afternoon and the dance for Friday evening. She invited all present to attend these entertainments and to bring their friends. In addition, Mrs. Mulford expressed her thanks to all who had coöperated with her committee in securing talent for the musicale, "especially the Atlantic County committee which has, as usual, contributed so much toward making the Annual Meeting of the State Auxiliary so pleasant. We hope that all members of the auxiliary and their husbands will attend the musicale and show their appreciation of the generous spirit of the wives of physicians who have so graciously consented to entertain us."

Mrs. A. Haines Lippincott, of the Advisory Committee, made one of her interesting and helpful informal speeches. She urged close coöperation between county, state and national bodies and stressed the county organization as the nucleus of success. "Get 100% membership in the county," she said, "and the rest will take care of itself."

Mrs. John F. Massey, First Vice-President, addressed a few words of greeting to the delegates.

County reports were called:

Atlantic, Mrs. Samuel L. Salasin.—The Chairman of the Committee on Education and Welfare, Mrs. J. T. Beckwith, has secured 9 engagements for Mrs. Taneyhill to speak before various organizations throughout the county.

The Committee on Entertainment, Mrs. E. H. Harvey and Mrs. M. S. Ireland, turned in, as the proceeds from a successful card party, $274.25. Of this amount, $192 was donated for chairs for convalescents in the Children's Ward of the Atlantic City Hospital, and $35 was given for a brace for one of the patients in the ward.

In February the nurses of the hospital were guests of the auxiliary to hear Mrs. Taneyhill give her talk on "The Life and Work of Pasteur". At the March meeting Dr. Reik explained the provisions of the cult bills which had been introduced in the legislature this year, and the necessity for organized opposition to these measures. Mrs. Mulford gave an outline of the work of the Burlington County Auxiliary. In April the Harmonica Boys of Atlantic City gave a concert for the auxiliary, and in May the society was entertained by the Boy Scouts, to whom a donation of $10 was made. A luncheon bridge was also held in May, at the Northfield Country Club and a card party for the benefit of the Welfare fund is planned for the last of July. The sum of $152 was realized from a cake sale held during the year.

For the Legislative Committee, Mrs. Edwin Guion reports that she personally interviewed Mr. Joseph Altman, Assemblyman, and that through the Director of Health for Atlantic County, Dr. Samuel L. Salasin, Assemblyman Siracusa and Senator Richards were interviewed. All of these gave assurance that they would oppose the passage of the cult bills.

For the Committee on Publicity, Mrs. C. A. Surran reported that every member had been notified in advance of time and place of meetings, and that notices of such meetings had been placed in all local papers.

The report of the Treasurer, Mrs. R. A. Bradley, showed the total expenditures for the year to have been $260.76, and the present balance to be $262.92.

The Committee on Membership, Mrs. Samuel Gorson, chairman, has brought in 18 new members in the course of the year.

In conclusion, I want to thank my committees for their excellent coöperation. Whatever success my administration has attained is entirely due to their efforts.

Respectfully submitted,
Mrs. Samuel L. Salasin,
President.

Bergen, Mrs. Edward W. Clarke.—Our auxiliary held 8 meetings during the year, with an average attendance of 14 members. Our organization was made treasurer of the county antidiphtheria campaign fund, for which we ourselves raised $100.

Mrs. Taneyhill was present at our December meeting and spoke on auxiliary activities—actual and possible. An interesting program for

our March meeting consisted of an instructive talk on "Child Hygiene" by Mrs. Maria Miller, a prominent Child Welfare Worker in New York City. In May, 20 of our doctors' wives journeyed up to Pearl River to visit the Lederle Antitoxin Laboratories—a day well spent!

Last, but not least, our auxiliary is very proud to have given to the Bergen County Isolation Hospital the book with which they took the prize in the National Hospital Day contest.

Respectfully submitted,
Alfreda F. Clarke,
President.

Burlington County, Mrs. Robert E. Haldeman.—The Burlington County Auxiliary has a membership of 45 out of a possible 49. Our meetings are held quarterly, but we have divided our county into 4 groups which meet each month in which a county meeting is not held. Each of these groups elects a leader, and during the past year their principal task has been the making of dressings for the Burlington County Hospital. In this way a closer association is built up between women who live in neighboring towns, and the attendance has increased because the places of meeting were more accessible to the majority of the members. We find it very easy to relay important messages to our members and the units are kept busy, well informed, and therefore interested. At our county meetings, after business is disposed of we have a speaker and close informally with tea.

At the October meeting Mrs. Taneyhill gave us her illustrated talk on "The Life and Work of Pasteur". In January Mrs. Orton spoke to us. In March Mrs. Taneyhill talked on "Death Control", and at our last meeting in May Mrs. W. Wayne Babcock, of Philadelphia, a national organizer, was our speaker. The doctors entertained us at an evening meeting at the Moorestown Community Club in December.

Hygeia has been placed in most of the public places in our county. One of our groups gave a card party to raise funds for such subscriptions. The Courtesy Committee takes charge of writing notes to our members who are ill or in trouble of any kind. One of our groups is working with a preschool clinic for the immunization of preschool children with toxin-antitoxin.

Respectfully submitted,
Gertrude Haldeman,
President.

Camden County, Mrs. A. J. Casselman.—The Woman's Auxiliary to the Camden County Medical Society meets 4 times a year, on the second Tuesday of October, January, March and May. Two are evening meetings with a business program followed by a speaker, and two are social meetings held in the afternoon.

Dues are $5.00 a year, which includes subscription to Hygeia. We have an enrollment of 39 active members; average attendance, 17.

In promotion of the educational work 8 engagements have been secured for Mrs. Taneyhill in the course of the year. At our last meeting in May a committee of two was appointed to write to all the Parent-Teacher Associations in the county, informing them of the availability of these talks for their programs for the coming year. Several requests for engagements have already come in.

At the State Social Service Conference, held in Camden, December 7, 8 and 9, 1928, over 100 back numbers of Hygeia, graciously provided by Mrs. Lippincott, were distributed under the auspices of the Gloucester and Camden County Auxiliaries. We ascertained that Hygeia is in all the libraries and schools in the county, also in the Y. W. C. A. and Y. M. C. A. reading rooms. These were all subscriptions of several years' standing.

At our meeting in October, 1928, Dr. Mabel Grier Lesher addressed the auxiliary and told of the work she was doing as Medical Examiner and Social Hygiene Instructor in our high school.

Because of the prevalence of influenza, our January meeting was postponed until February. This was a social affair and cards were played, guests being invited. At our March meeting Mrs. Taneyhill showed some autochromes which, aside from their beauty, were doubly interesting because they were taken by Dr. Reik. Dr. Lippincott and Dr. Reik also addressed us on that evening in regard to the bills which the medical society is opposing in the legislature, and a committee was appointed to interview our assemblyman and voice our protest against the passage of these measures. After our business meeting in May we were invited to join the county society to hear Dr. Ellen Potter and Dr. Julius Levy discuss the Sheppard-Towner act. This was a very interesting evening.

We have centered our efforts mostly on securing engagements for Mrs. Taneyhill, procuring subscriptions for Hygeia, and helping the county medical society in legislative matters.

Respectfully submitted,
Zula Mae Casselman,
President.

Cape May, Mrs. Pettit.—No written report presented.

Cumberland, Mrs. M. F. Sewall.—No report.

Essex, Mrs. George A. Rogers.—The Woman's Auxiliary of the Essex County Medical Society has held 4 meetings since the June Convention of 1928. The first of these, in October, 1928, was entirely devoted to business, the election of officers for the ensuing year taking place. As the first year of our existence had been one of organization, it was thought best to reëlect the same officers for another year of service.

The second meeting, held on the fourth Monday in January, was given over to cards. We also had the pleasure at this time of a visit from our state president, Mrs. George L. Orton.

At the third meeting in March, we had the privilege of hearing Mrs. Taneyhill, who gave her delightful illustrated talk on "The Life and Work of Pasteur". Unfortunately the day was stormy and the attendance lamentably small.

In order to arouse some enthusiasm, the last meeting of the season was purely social, with cards, prizes and refreshments, but again the attendance was disappointing.

The only constructive work we have done is to place Hygeia in 17 places where we thought the magazines would be used by many people.

The number of members enrolled is 119, all but 45 having paid dues to date.

We are still feeling our way and trying to interest nonmembers to become members at least in name, even if other duties prevent active participation. We hope that this time next year the report will show progress both in work done and in increased membership.

Respectfully submitted,
Mrs. George A. Rogers,
President.

Gloucester, Mrs. James Hunter, Jr.—The Gloucester County Auxiliary launched its activities for the fiscal year by assisting in the arrangements for the annual social session of the Medical Society, held always in September. Mrs. Duncan Campbell, an outstanding figure in the musical circles of the county and chairman of the Entertainment Committee, provided the unusual display of flowers and a most delightful musical program.

In October the president entertained the Executive Board at a round table luncheon, at which time the policy of the new society for the ensuing year was freely discussed. The meetings were to be bimonthly and the dues were to continue at one dollar with voluntary contributions from the wives of physicians engaged in active practice.

Our society has not grown any during the past year—26 members, which is 80% of the possible membership, continuing on the roll. We have no public hospital in the county and, while the services of the auxiliary were freely offered to the executives of the private hospitals, no requests have been received as yet.

We therefore decided to make the new year one of preparedness, educating the membership along medical lines. Provision was made for cards at the close of the business and program, this feature to be used only as a means to an end. It is gratifying to state that at no time did we feel it necessary to use this lure. Every effort was made to begin promptly, make the business meeting snappy and then proceed with the prepared program or, whenever practical, join the men in theirs.

Medical Ethics, the keynote of harmony, was the subject of several meetings. At one, Dr. Emma Richardson of Camden gave us an illuminating talk on the part the family should play in this relationship to the public. At the next meeting, Dr. Hammond, Editor of the Pennsylvania Journal, was the guest of the Medical Society, and spoke on "Medical Ethics and Pastoral Medicine". It was indeed a fascinating talk and the discussion which followed was most enlightening. At the next meeting the Hippocratic oath was read and ordered pasted in the Secretary's book for future reference. This was followed by a paper on "The History of Hospitals".

With the foregoing background and the Journal for a text-book, we proceeded with our educational scheme by providing a simple circulating library, the following books being placed at the disposal of the members: The Human Body, by Glendenning; Laughter and Health, by Walsh; The Doctor Looks at Love and Marriage, and The Doctor Looks at Medicine, by Joseph Collins; Medical Follies, by Fishbein. At each meeting the president has called attention to outstanding articles in the Journal and in current literature. This feature has always called forth much discussion. During the year we have also heard Dr. Kennedy—Dr. Joseph Price's faithful disciple—and Dr. Hughes, who described a trip through the Balkans, and in May we were again guests of the Medical Society to hear Dr. Morris Fishbein give his well known talk, "Medical Quackeries". After each meeting we joined the men in a social hour.

No work has been assigned the Legislative Committee. The members of the Welfare Committee of the county society arrange for such contacts through the family physicians of the legislators and for years both senators and assemblymen have been in sympathy with our aims.

Mrs. Taneyhill has visited Gloucester County 4 times, speaking before the Woodbury High School, the Glassboro Normal School, the Parent Teacher Association of Clayton, and a joint meeting of this same organization from neighboring towns, held at Gibbstown.

No particular drive has been attempted for Hygeia. It is generally in the homes of the physicians, and the auxiliary members pass it on where each thinks it will do the most good—in schools, colored schools, etc. An exhibit of Hygeia was staged by Mrs. J. Harris Underwood, the chairman of the Committee on Public Health and Hygeia, for the New Jersey Conference of Social Workers, as noted in the report of Mrs. Shirreffs, state chairman of that committee.

The president has issued three letters during the year in the form of a roster in which she has endeavored to give a concise résumé of the work accomplished and to be undertaken. These rosters have been sent to the home address of every physician in the county. The slogan for the year has been, "Enthusiasm through participation".

Respectfully submitted,
Elizabeth Hunter,
President.

Hudson, Mrs. William Freile.—No written report presented.

Hunterdon, Mrs. Grenelle B. Tompkins.—The first meeting of the Hunterdon County Auxiliary was held in October, 1928, at the home of Mrs. Tompkins in Flemington. Eighteen members were present and after a talk by Dr. Reik, setting forth the objectives of the organization, an informal luncheon was served.

At the second meeting in April, Mrs. Taneyhill was present and brought us word of what was being accomplished and undertaken by the other auxiliaries in the state. The members then dined together at the hotel.

We have not yet got under way in Hunterdon County and our only real effort has been the providing of Xmas packages for women patients at Glen Gardner Sanatorium, who would otherwise not have been remembered.

Respectfully submitted,
Jane D. K. Tompkins,
President.

Mercer.—No report.

Middlesex.—No report.

Passaic, Mrs. Augustin M. Schultz.—The Auxiliary to the Passaic County Medical Society has 4 meetings a year. These meetings are held at Health Center in Paterson on the same evenings as those of the Medical Society. Average attendance, 30 to 32 members.

At the January meeting we had a most interesting talk, by Dr. O. R. Hagen, on Valley View Sanitarium. In March, Miss DeLosche, Child Health Worker and director of a summer camp, spoke on "Child Hygiene". At our meeting in May we had the pleasure of having our State President, Mrs. George L. Orton, and the Field Secretary of the Medical Society, Mrs. E. C. Taneyhill, with us. The members were most appreciative of the opportunity to hear both Mrs. Orton and Mrs. Taneyhill.

At the request of the county society, many of our members wrote to our representatives in the Legislature, urging opposition to the cult bills which had been introduced in the Senate and

House. Seven of our auxiliary members were present at a hearing of Bills No. 25 and No. 44 at Trenton.

Respectfully submitted,
Loretta C. Schultz,
President.

Salem—No report.

Somerset, Mrs. Dan S. Renner.—The Woman's Auxiliary to the Somerset County Medical Society held its annual meeting the second Thursday in October and the officers were reëlected to serve another year. The report of the delegates to the annual meeting of the auxiliary was read by the president and a delightful luncheon was enjoyed in the company of the members of the County Medical Society at the Raritan Valley Country Club.

In December, Mrs. George L. Orton, our state president, and Mrs. Taneyhill spoke to us in behalf of the antidiphtheria campaign which is being conducted by the county society in coöperation with the state committee. Mrs. Orton also gave us some plans for active work for the year.

Under the auspices of the Committee for Prevention of Diphtheria, Mrs. Taneyhill addressed, during one week in the month of January, 17 men's and women's organizations throughout the county. Dr. Ely, the county chairman, was assisted by the auxiliary in securing many of these engagements for Mrs. Taneyhill. As a result of this drive a little more than 50% of the school children have been immunized, a part of the other 50% having already received the treatment.

Respectfully submitted,
Clara C. Renner,
President.

Sussex, Mrs. Bruno Hood.—No written report.

Union, Mrs. Fred A. Kinch.—No written report.

Warren, Mrs. George Homer Bloom.—No written report.

Mrs. Taneyhill explained the report of her work, copies of which had been distributed among the delegates (see Official Transactions under Report of Field Secretary), and expressed her thanks to those auxiliaries which had assisted her so materially in her work during the year.

Mrs. Massey took the chair while Mrs. Orton made her presidential address.

Meeting adjourned.

Friday, June 14, 1929

The adjourned meeting was called to order at 10 a. m. by the President, Mrs. George L. Orton.

The question was asked by Mrs. Rogers as to the best policy to follow in regard to those who had enrolled as members but were backward about paying their dues. Mrs. Lippincott advised personal contact as the best way to get results and suggested that a committee be appointed in each society to visit those members who have not responded to written notices.

Dr. Julius Levy, Consultant of the Bureau of Child Hygiene at Trenton, gave a most helpful and illuminating demonstration of the work of his department, illustrating the value of preventive hygiene by the exhibition of children brought in from the neighborhood of Atlantic City by the Child Hygiene Bureau nurses. He was most tactful and encouraging in his presentation, and in every possible way guarded the little subjects so that at no time were they nervous or selfconscious. A rising vote of thanks was given Dr. Levy at the close of his talk.

Dr. Henry O. Reik, Executive Secretary of the Medical Society of New Jersey and Editor of the Journal, introduced the new president of the Society, Dr. Andrew F. McBride, of Paterson. Dr. McBride cordially endorsed the work and aims of the auxiliary and pledged his support to the organization. He invited the auxiliary to attend the General Session of the Medical Society at 12 o'clock, to hear the address of the retiring president, Dr. Ephraim R. Mulford.

Dr. Reik followed Dr. McBride with one of his characteristic talks in which he reiterated a plea he is often forced to make, namely, that reporters for the auxiliaries turn in their material for the Journal promptly.

Mrs. W. Wayne Babcock, of Philadelphia, formerly national organizer for the auxiliary to the A. M. A., spoke briefly as to the advisability of centering effort on the development of existing auxiliaries throughout the state, leaving the nonactive counties to an awakening of their opportunities through the light of example.

Mrs. Beyers, a visitor from the Norris County Auxiliary, Pennsylvania, was introduced. This is the second annual meeting of the New Jersey Auxiliary that Mrs. Beyers has attended and our organization expressed itself as most appreciative of her interest.

On behalf of the delegates, Mrs. Lippincott presentetd Mrs. Orton with a token of recognition of her services as President, and of esteem for her personally as a valued member. Mrs. Orton made a graceful acknowledgment of the gift.

The Nominating Committee brought in the following report: President, Mrs. James Hunter, Jr., of Westville (Gloucester); President-Elect, Mrs. D. Leo Haggerty, of Trenton (Mercer); First Vice-President, Mrs. Dan S. Renner, of Skillman (Somerset); Second Vice-President, Mrs. R. R. White, of Franklin (Sussex); Third Vice-President, Mrs. H. H. V. Hubbard, of Plainfield (Union); Recording Secretary, Mrs. A. J. Casselman, of Camden (Camden); Treas-

urer, Mrs. H. R. Van Ness, of Newark (Essex).

Directors: Mrs. Reeve L. Ballinger, of Arlington (Essex); Mrs. Theodore Teimer, of Newark (Essex); Mrs. George M. Culver, of Jersey City (Hudson); Mrs. Emanuel D. Newman, of Newark (Essex); Mrs. Ephraim R. Mulford, of Burlington (Burlington); Mrs. G. N. J. Sommer, of Trenton (Mercer).

Advisory Board: Mrs. A. Haines Lippincott, of Camden (Camden); Mrs. George L. Orton, of Rahway (Union).

Mrs. Lippincott took the chair. The nominations were accepted as read; there were no nominations from the floor and the Secretary was instructed to cast the ballot.

The newly elected President, Mrs. James Hunter, formally accepted office and made an earnest plea for the loyal support of all members during her administration.

Meeting adjourned.

Meeting of the Executive Board, Friday, 1 p. m.

The President, Mrs. Hunter, made the following appointments of chairmen for standing committees, which were approved by the Board:

Committee on Publicity and Reporter for the Journal, Mrs. W. Blair Stewart.

Committee on Public Health (including Hygeia), Mrs. Russell A. Shirrefs.

Committee on Program, Mrs. Edward W. Clarke.

Committee on Entertainment, Mrs. William Freile.

Committee on Credentials and Registration, Mrs. Samuel L. Salasin.

MEETINGS OF THE COUNTY SOCIETIES

Atlantic County.—Meets second Friday evening monthly, except in June, July, August and September. Annual Meeting in November.

Bergen County.—Meets on second Tuesday each month, except July and August. Annual Meeting in October.

Burlington County.—Meets second Wednesday afternoon of January, March, May, July, September and November. Annual Meeting in November.

Camden County.—Meets second Tuesday in each month, September to May inclusive, with an outing on second Tuesday in June. Annual Meeting in October.

Cape May County.—Meets on first Tuesday in April and October. Annual Meeting in October.

Cumberland County.—Meets on the second Tuesday of January, April, July and October. Annual Meeting in October.

Essex County.—Annual Meeting is the first Tuesday in October. Other meetings on the second Thursday of each month, November to May on call of President.

Gloucester County.—Regular Meetings on the third Thursday of each month, October to June, inclusive. Annual Meeting in November. Annual Social Session in September.

Hudson County.—Meets first Tuesday evening of each month, October to May, inclusive. Annual Meeting in May.

Hunterdon County.—Meets on the fourth Tuesday of January, April, July and October, the latter being the Annual Meeting.

Mercer County.—Meets on the second Wednesday of each month, except July, August and September, at 8:15 p. m., in the City Hall at Trenton. Annual Meeting in December. Annual Banquet in November.

Middlesex County.—Meets on the third Wednesday afternoon of each month, September to June inclusive. Annual Meeting in November.

Monmouth County.—Meets on the last Wednesday in each month from October to June inclusive. Annual Meeting on the Tuesday after the first Monday in December.

Morris County.—Meets on the second Tuesday in March, June, September and December. Annual Meeting in September. Special meetings (1-3 yearly) for additional scientific discussions arranged by Executive Committee.

Ocean County.—Meets in May and November as called by the Secretary. Annual Meeting in November.

Passaic County.—Meets on the second Thursday evening of each month, except June, July and August. Annual Meeting in October.

Somerset County.—Meets on the second Thursday afternoon in February, April, June, October and December. Annual Meeting in October.

Salem County.—Meets on the second Wednesday in February, April, October and December. Annual Meeting in October.

Sussex County.—Annual Meeting on the second Tuesday in May and September; other meetings at call of the Secretary.

Union County.—Meets on the second Wednesday of January, April, July and October. Annual Meeting in October.

Warren County.—Meets on third Tuesday of January, April, July and October; the last named being the Annual Meeting.

The New York Academy of Medicine

THIS BOOK MUST NOT BE RETAINED FOR LONGER THAN ONE WEEK AFTER THE LAST DATE ON THE SLIP UNLESS PERMISSION FOR ITS RENEWAL BE OBTAINED FROM THE LIBRARY.

MAY 7 -

DEC 8